



HAMPDEN COUNTY REGISTRY OF DEEDS

DAMS FILE COLLECTION

BOOK D17

TOWN OF SOUTHWICK, MASSACHUSETTS



*Donald E. Ashe, Register
Hampden County Registry of Deeds,
a Division of the Office of
William Francis Galvin, Secretary of the Commonwealth*

TABLE OF CONTENTS ~ TOWN OF SOUTHWICK

Ahrens Dam

Tysz Dam

Baker Dam

Rood Dam aka Hosmer Farm Dam

Congamond Lakes Dam at Middle Pond

Congamond Lakes Dams & Dikes

Creeger Dam aka Cass Dam

Spencer Dam

Farm Pond Dam

General Cigar Corporation Dams

Hathaway (Hatheway) & Steane Corporation Dams aka
Farm Pond Dams

Helliwell Dam

Kimball Dam

Battistoni Dam

Lake George Sportsmen's Club Dams

Logie Dam fka Purtel & Stauble Dams

Steele Dam

Pieczarka Dam

TABLE OF CONTENTS ~ TOWN OF SOUTHWICK

Tarant Dam

Southern New England Ice Company Dike

Kellogg Dam

Purtell & Stauble Dam

Clark Dam

Fletcher Dam

Ahrens Dam



o Southwick

Also see: Dam Report Section - Southwick.

City/Town	Southwick
Dam	Ahrens Dam
Name	Ahrens

SOUTHWICK
D17001

AHRENS DAM

D17001

NO IMAGE ON FILE FOR THIS RECORD

(INFORMATION EXISTS ONLY ON A FILE CARD FROM THE
OFFICE OF THE FORMER HAMPDEN COUNTY ENGINEER.)

Tysz Dam



o Southwick

Also see: Dam Report Section - Southwick. See also: Hathaway & Steane Corp Dam.

City/Town	Southwick
Dam	Tysz Dam
Dam	Hathaway & Steane Corp Dam
Name	Hathaway & Steans Corporation
Name	Tysz, Basil

SOUTHWICK
D17002

TYSZ DAM

D17002

NO IMAGE ON FILE FOR THIS RECORD

(INFORMATION EXISTS ONLY ON A FILE CARD FROM THE
OFFICE OF THE FORMER HAMPDEN COUNTY ENGINEER.)

Baker Dam



1936 Southwick

Located on small tributary of Great Brook near Longyard Street.

City/Town	Southwick
Dam	Baker Dam
Name	Baker, C.J
Streets	Longyard Street
Water	Great Brook

Copy of this letter sent to -

Mr. R. D. Tarant,
Longyard Street,
Southwick, Mass.

May 28, 1936

Mr. C. J. Baker
Longyard Street
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Section 45 of Chapter 253 of the General Laws as amended by Chapter 334 of the Acts of 1923 and as further amended by Chapter 175 of the Acts of 1934 relative to the inspection, condition and safety of the dams of Hampden County you are hereby notified that your dam located on a tributary of Great Brook near Longyard St. in Southwick is in poor condition, caused to a great extent by the damage done thereto by the flood waters in March last.

If the pond is to be maintained, substantial repairs will have to be made on the dam, such as refilling the wash-out at the east end of the structure, overhauling the spillway and raising the embankment to at least 2 feet above the crest of the spillway.

A copy of this letter is being sent to R. D. Tarant Longyard St., Southwick who, it appears, has an interest in the structure.

Any further information concerning this matter which you may desire will be furnished by this office upon request.

Yours truly,

COUNTY COMMISSIONERS,

By Thos. J. Costello
Chairman

Chas. W. Bray

Maurice G. Donahue

Rood Dam aka Hosmer Farm Dam



1926 Southwick

Located tributary of Great Brook.

City/Town	Southwick
Dam	Rood Dam
Dam	Hosmer Farm Dam
Name	Rood, Charles D
Water	Great Brook

February 24, 1926

Mr. Charles D. Rood,
31 Elm Street,
Springfield, Mass.

Dear Sir:

In accordance with the provisions of Section 45 of Chapter 253 of the General Laws as amended by Chapter 334 of the Acts of 1923 and as further amended by Chapter 178 of the Acts of 1924 relative to the inspection, condition and safety of the dams of Hampden County, you are notified that your dam, located on tributary of Great Brook so called in the Town of Southwick, has been inspected by our engineer and your attention is called to the following recommendations made by him;

"The spillway is in poor condition and the embankment at either end of it is washed out. If the pond, which covers a couple of acres, is to be maintained, the dam should be repaired with a permanent spillway placed therein, and the top of the embankment raised two and a half or three feet above the crest of the spillway."

Now, therefore, in accordance with Section 46 of said Chapter 253, it is ordered that the above recommendations be complied with in a reasonable time.

Yours very truly,

COUNTY COMMISSIONERS

By _____
Chairman.

Page 58 of Report

Charles D. Rood

31 Elm St.,
Springfield, Mass.

you are notified that your
dam, located on tributary of Great Brook so called
in the Town of Southwick, etc.

"The spillway is in poor condition
and the embankment at either end
of it is washed out. If the pond, which
covers a couple of acres, is to be maintained,
the dam should be repaired with a
permanent spillway placed therein,
and the top of the embankment raised
two and a half or three feet above
the crest of the spillway."

Now, therefore, etc.

Charles A. Rood
31 ELM STREET
SPRINGFIELD, MASSACHUSETTS

March 18, 1926.

County Commissioners,
George S. Cook, Esq., Chairman,
Springfield, Mass.

My dear Sir,-

My absence from the city is the reason of not earlier replying to your communication of some time ago, regarding the spillway, on the tributary of Great Brook, in the Town of Southwick, and located at what is known as the "Hosmer Farm".

I will immediately give attention to the matter, and thanking you for the notification,

Most respectfully ^{I am,} yours,

CDR D

Charles A. Rood

Congamond Lakes Dam at Middle Pond



1955 Southwick

Dam located in front of the culvert on Point Grove Road between Middle Pond and North Pond.

City/Town	Southwick
Dam	Congamond Lakes - Temporary Dam at Middle Pond
Streets	Point Grove Road
Water	Middle Pond
Water	Great Brook
Water	Westfield River
Water	North Pond

C O P Y

CD

Oct. 20, 1955

Board of Selectmen
Town Office
Southwick, Massachusetts

Gentlemen:

In reference to the temporary dam that you have constructed with sand bags and timber in front of the culvert on Point Grove Road between Middle Pond and the drained North Pond, we wish to call your attention to the fact that the operation and maintainence of this structure presents a serious problem to you and a tremendous responsibility insofar as the lives and safety of persons downstream are concerned as well as the protection of public and private property. Failure of the temporary dam by the loss of Point Grove Road or the culvert structure could result in the uncontrolled discharging of Middle Pond into the valley of Great Brook and thence into Westfield River.

The sand bag dam in front of the culvert should be maintained and should not be allowed to become badly eroded. It might be advisable to contact the agency, state or federal, that is planning the repair in the North Pond dike area and to obtain their assistance in constructing a more stable temporary dam than that now existing. This temporary dam might even be constructed with the use of driven steel sheets if it is expected that a long time will elapse before the permanent structure is built northerly of North Pond.

In the meantime, continuous effort should be made to impress upon the agency handling your problem the seriousness of the existing conditions. If permanent repairs are planned for this Fall then the continued maintainence of the present timber and sandbag dam would be the practical solution. If the construction of permanent repairs are to be delayed until 1956 and thus existing conditions might continue for a year or so, a more rugged and lasting dam should be built upstream of the culvert. In the meantime maintain your sand bag dam as a separate structure capable of holding back Middle Pond should the culvert and road immediately adjacent thereto fail. This is a remote possibility but must be included in the planning for the control of Middle Pond.

Board of Selectmen
Southwick, Massachusetts

- 2 -

CD
Oct. 20, 1955

In writing to the agency handling your problem, it would be well to stress the danger to the homes now situated along the cut in the vicinity of the old canal. Some of these homes are close enough to the top of the washed out cut so that the normal slope of the soil may eventually cause damage to, if not complete loss of, one or more buildings.

In operating your dam at Middle Pond you should keep in mind that an excess quantity of water discharged thru North Pond could endanger the above mentioned buildings by causing a further washout of the steep banks of the cut. It would seem advisable to do protective work along these banks if existing conditions are to remain thru the coming winter and spring months. If weather conditions become such that it is necessary to release water from Middle Pond, please do not hesitate to call upon the undersigned for any advice and guidance. We will be pleased to assist you at any time in making decisions on the handling of water if you call upon us when rising water conditions prevail.

Very truly yours

GHM/cmb

George H. McDonnell
County Hydraulic Engineer

C O P Y

October 26, 1955

Sub Area Engineer,
Corps of Engineers,
Box 116,
Chicopee, Mass.

Dear Sir:

The County Commissioners call your attention to the enclosed copy of letter regarding conditions at Congamond Lake, Southwick, which we feel require your immediate attention.

You may find that the enclosed letter relates to projects in Southwick which you have already investigated.

We expect that the Town of Southwick will request emergency repairs at the location referred to in the letter of our County Hydraulic Engineer.

Very truly yours,

HAMPDEN COUNTY COMMISSIONERS

By _____

WFS/N
encl.

October 26, 1955

Board of Selectmen,
Town of Southwick,
Massachusetts.

Gentlemen:

In a conversation with the office of the Corps of Engineers, we have been advised that the Town of Southwick should request that the Federal Government make emergency repairs at the site on Congamond Lake referred to in the enclosed copy of letter of our Hydraulic Engineer.

Your request to the Corps of Engineers should be accompanied by the enclosed copy of Mr. McDonnell's letter and it should be directed to Mr. L. E. Dillow, Liason Office, Corps of Engineers, Box 116, Chicopee, Mass.

Very truly yours,

HAMPDEN COUNTY COMMISSIONERS

By _____

WFS/N
encl.

CD Southwick

Nov. 23, 1955

COPY

Board of Selectmen
Town Hall
Southwick, Mass.

Gentlemen:

This will confirm our conversation and my inspection of the temporary dam at the northerly end of Middle Pond on Congamond Lakes, Saturday, Nov. 19th.

In order to reduce the extremely high level of the water in Middle and South Ponds, permission was given to remove 5-inches of planking at the temporary dam. This was to be done by cutting the top timber of the temporary dam for a width slightly less than the width of the culvert opening. You are cautioned to observe erosion from time to time at the outlet end of the culvert in the vicinity of the water main and in the washed out channel at the north end of North Pond where homes are situated dangerously close to the edge of the washout.

Before any further planking is removed from the temporary dam and before any further changes are made to the temporary dam, it is agreed that the undersigned would be notified. The temporary dam should be carefully maintained, particularly in regard to its mass and stability.

Very truly yours

George H. McDonnell
County Hydraulic Engineer

GHP:cmh

COPY

May 22, 1968

Board of Selectmen
Town Office
Town of Southwick, Massachusetts

Gentlemen:

In connection with your request of April 9, 1968 regarding the dams in the Town of Southwick, the County Hydraulic Engineer has completed an inspection of all dams within Southwick and has submitted his report to our Board.

A copy of the report of the County Hydraulic Engineer is attached hereto for your information and file purposes.

Please be advised that the following owners of dams have been informed of conditions at their individual dams and repairs or alterations have been recommended or directed as the case may be.

1. Irving Kimball, owner of Irving Kimball Dam.
2. Dr. Logie, owner of Dr. Logie Dam.
3. Hathaway & Steane Co., owner of Dams #1 thru #3, and the Farm Pond Dam.
4. Basil Tysz, owner of Basil Tysz Dam.
5. General Cigar Corp., owner of the Lower and Upper Corp. Dams on Slab Brook.

If there is any further information desired by your Board in connection with this matter, please call or write our Board.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS



COMMONWEALTH OF MASSACHUSETTS

TOWN OF SOUTHWICK

Office of the
BOARD OF SELECTMEN

*copy sent
6-14-68*

June 12, 1968

Board of County Commissioners
52 State Street
Springfield, Mass.

Gentlemen:

In reference to your letter of May 22, 1968 regarding dams in the Town of Southwick, you stated a copy of the report of the County Hydraulic Engineer is attached to your letter for our information and file purposes. Due to an oversight there was no copy of any report attached to your letter.

Would you kindly send us this report.

Very truly yours,

Benedict J. Nascimbeni
dc

Benedict J. Nascimbeni, Chairman
Board of Selectmen

BJN:dc

WATER SUPPLY
SEWERAGE
SEWAGE DISPOSAL
STRUCTURAL ENGINEERING

TIGHE & BOND, Inc.
CONSULTING ENGINEERS
189 HIGH STREET
HOLYOKE, MASSACHUSETTS
GEORGE H. McDONNELL
PHILIP W. SHERIDAN

DAMS & POWER INSTALLATIONS
HIGHWAYS & BRIDGES
HOUSING DEVELOPMENT
WASTE DISPOSAL

CD Southwick

Nov. 23, 1955

The Hon. the Board of County Commissioners
Hampden County Court House
Springfield, Massachusetts

Gentlemen:

Enclosed for your information and file
please find a copy of a letter sent to the Selectmen
in Southwick, relative to the temporary dam at Middle
Pond. The contents of the letter are self explanatory.

Very truly yours


George H. McDonnell
County Hydraulic Engineer

Enc.
GHM:cmb

GEORGE H. McDONNELL
PHILIP W. SHERIDAN
EDWARD J. BAYON

***TIGHE
& BOND*** *CONSULTING ENGINEERS*

CIVIL, SANITARY AND ELECTRICAL ENGINEERING
INVESTIGATIONS, REPORTS, PLANS AND SPECIFICATIONS
SUPERVISION OF CONSTRUCTION AND OPERATION

BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991

CD Southwick
April 22, 1968

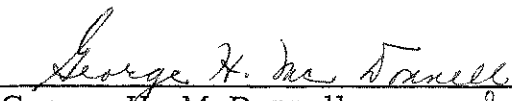
The Honorable the Board of County Commissioners
52 State Street
Springfield, Massachusetts

Gentlemen:

The photocopy of the communication from the Board of Selectmen of Southwick dated April 9, 1968, and requesting that all dams in the Town of Southwick be inspected, has been received by the undersigned.

I have scheduled the inspection and as soon as all of the dams are examined, I will submit my report to your Board. The work will probably be done during the last week of this month or the first week of May.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/amd

GEORGE H. McDONNELL
PHILIP W. SHERIDAN
EDWARD J. BAYON

TIGHE & BOND

CONSULTING ENGINEERS

CIVIL, SANITARY AND ELECTRICAL ENGINEERING
INVESTIGATIONS, REPORTS, PLANS AND SPECIFICATIONS
SUPERVISION OF CONSTRUCTION AND OPERATION

BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991

May 22, 1968

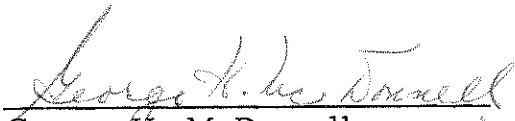
The Honorable the Board of County Commissioners
52 State Street
Springfield, Massachusetts

Gentlemen:

In accordance with your directive and the request of the Board of Selectmen of the Town of Southwick, the undersigned has made an inspection of every dam located within Southwick and submits herewith, for your information, an original and two copies of my report relative to these dams.

Also enclosed, are suggested communications to be sent to various dam owners and a suggested letter to the Board of Selectmen of Southwick advising them that all dams have been inspected as per their request. You will note in the letter to the Board of Selectmen of Southwick, I have indicated that a copy of the report would be included. If you concur, these various communications could be signed and forwarded.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/amd
Encl.

WATER SUPPLY

SEWERAGE

SEWAGE DISPOSAL

STRUCTURAL ENGINEERING

TIGHE & BOND, Inc.
CONSULTING ENGINEERS

189 HIGH STREET

HOLYOKE, MASSACHUSETTS

GEORGE H. McDONNELL

PHILIP W. SHERIDAN

DAMS & POWER INSTALLATIONS

HIGHWAYS & BRIDGES

HOUSING DEVELOPMENT

WASTE DISPOSAL

CD

Oct. 20, 1955

The Hon. the Board of County Commissioners
Hampden County Court House
Elm Street
Springfield, Massachusetts

Gentlemen:

Enclosed for your information and files please find a copy of a letter sent to the Selectmen of Southwick regarding Middle Pond on Congomond Lake. A serious condition exists at this location and though conditions are adequately controlled at the present time on a temporary basis, we feel that the situation requires constant attention by those responsible for eventually repairing the washed out North Pond. The enclosed letter is self explanatory.

Very truly yours



George H. McDonnell
County Hydraulic Engineer

Enc.
GHM*cmb

October 26, 1955 Chairman Sullivan talked with Mr. Saunders today, emphasizing the serious nature of this problem. Mr. Saunders and Board of Selectmen expect to visit the Flood Relief Board in Boston within a few days.

F. M. GUNBY
W. F. UHL
W. M. HALL
R. W. LOGAN
M. JACOBS
G. R. RICH
R. T. COLBURN

CHAS. T. MAIN, INC.
80 FEDERAL STREET
BOSTON 10, MASS.

INDUSTRIAL PLANTS
TEXTILE MILLS
PAPER MILLS
PRINTING PLANTS
STEAM POWER
WATER POWER
FOUNDATIONS
VALUATIONS

CABLE ADDRESS
CHASMAIN, BOSTON

317 SOUTH TRYON STREET
CHARLOTTE, N. C.

May 8, 1956

167-73

Subject: Congamond Lakes
Study of Outlet

Commonwealth of Massachusetts
Department of Public Works
Division of Waterways
100 Nashua Street
Boston, Massachusetts

Gentlemen:

We submit herewith a report on studies we have made relative to providing a new outlet for Congamond Lakes in Southwick, Mass. These studies were made pursuant to Contract No. 1566, dated Jan. 9, 1956, and received by us on March 6, 1956.

Briefly, we conclude that the lakes should be restored by construction of an earth dike plug in the north outlet, that the dike at the south end should be raised and strengthened, that the present outlet into Great Brook should be replaced with a larger and more substantial structure, and that the roadway forming the restraining dike at the Great Brook outlet should be raised. Our proposals are described as Alternative No. 1 of the report and are shown on Plate VI. The estimated cost is \$51,500.

Regarding the channel of Great Brook, we conclude that no major program of improvement is warranted at this time.

We believe that the report covers all points about which there might be any question. Please do not hesitate to call on us, however, should you feel that elaboration of any part is necessary.

Yours very truly,

CHAS. T. MAIN, INC.

By *C. C. Cullum*
C. C. Cullum

CCC:j

REPORT ON
STUDIES MADE RELATIVE TO PROVIDING
A NEW OUTLET FOR CONGAMOND LAKES
SOUTHWICK, MASS.

<u>INDEX</u>	<u>Page No.</u>
1. GENERAL	1
2. SCOPE	1 & 2
3. PROPOSED WORKS	2 & 3
(a) Great Brook Channel	2
(b) Outlet to Lakes	2
(1) Alternative No. 1	3
(2) Alternative No. 2	3
4. CONCLUSIONS & RECOMMENDATIONS	3
(a) Great Brook Channel	4
(b) Lake Outlet	4
(c) Lake Levels	4
5. DRAINAGE AREAS	4
6. RAINFALL	5
(a) Aug. 1955 Storm	5
(b) Design Storm	6
7. STORM RUN-OFF	6
(a) Inflow to Lakes	6
(b) Inflow to Great Brook	7
8. RISE IN LAKE LEVELS	8
9. COSTS	8
(a) Great Brook Channel	8
(b) Lake Outlet, Alt. No. 1	9
(c) Lake Outlet, Alt. No. 2	9

Plate I	- Rainfall Data.
Plate II	- Profile of Great Brook
Plate III	- Hydrograph of Inflow to Lakes for Design Storm
Plate IV	- Reservoir Volume
Plate V	- Inflow, Outflow, Lake Elevations for Design Storm
Plate VI	- Layout of Lake Outlet Structures, Alternative No. 1
Plate VII	- Layout of Lake Outlet Structures, Alternative No. 2

REPORT ON

STUDIES MADE RELATIVE TO PROVIDING A NEW OUTLET FOR CONGAMOND LAKES SOUTHWICK, MASS.

1. GENERAL. - Congamond Lakes, in the town of Southwick, Mass., comprise three interconnected ponds having a total surface area of about 464 acres. The lakes lie approximately in a north and south direction, about three miles long and up to one-third of a mile wide. The eastern shore forms, generally, the State boundary of the Massachusetts panhandle into Connecticut. The lakes were at one time part of the Hampshire & Hamden Canal, with entrances at the extreme north and south ends. Upon abandonment of the canal, these outlets were plugged with earth dikes.

The natural outlet of the lakes, called Great Brook, emerges westward from the southern end of the middle pond, flows generally northward, circles around the north end of the lakes and discharges about 5 miles northeastward into the Westfield River. The channel is restricted in several places by culverts. The present outlet from the lakes is a severe restriction, consisting only of a 36" x 58" corrugated iron culvert. A considerable drainage area feeds the brook from the westward and it is this area that contributes to flooding of the channel rather than any outflow from the lakes.

During the hurricane storm of August 18-19, 1955, there were two separate occurrences, both related to the storm but having little relation to each other, which caused property damage in the area.

First, during the height of the storm, the channel of Great Brook became gorged with water and flooded to a varying degree some six establishments - 4 private dwellings (one destroyed), a convalescent home and a filling station - along its banks and a tributary brook. The lake thus formed finally broke through the railroad fill which formed the dam and was relieved. There was some damage to highway culverts and fills where these were overtopped.

Second, the Lakes, as is usual, continued to rise after the rainfall had ceased. Some six hours after the run-off producing rain had stopped, water began overtopping the plug in the north outlet. Efforts to stop this were not successful and about nine hours later the entire north pond went out, cutting an immense gorge out to the channel of Great Brook. The highway culvert connecting Middle Pond and North Pond was sealed off so that only North Pond was drained.

2. SCOPE. - This report is principally concerned with measures for sealing off the lakes and providing means so that the outflow can be carried away in a safe and dependable manner. As a coordinate problem, a study was made of the inflows to Great Brook other than from

the Lakes, and of the carrying capacity of Great Brook Channel, both up to a point opposite the north end of the lakes. No study has been given to the channel between this latter point and the confluence with Westfield River.

The storm of August 18-19, 1955 so greatly exceeded all previous records for the entire eastern part of the country that design of hydraulic structures in general for worse conditions is not considered either reasonable or economical. The storm is, therefore, taken as a criterion for the study. Whenever conditions during the August 1955 storm are described, it can be taken that they apply equally to the "design storm".

3. PROPOSED WORKS

(a) Great Brook Channel. - The following conditions obtain in Great Brook Channel during a flood comparable to that of Aug. 19, 1955. They are illustrated on a profile of the Channel, Plate II.

1. Flooding of the Channel is caused by insufficient culvert capacity.

2. The culvert under the N.Y., N.H., & H. Railroad tracks is the controlling restriction. This culvert is reported to have been partially obstructed by debris during the flood of August 1955 but the effect of the obstruction was apparently minor. The high railroad embankment effectively dammed the stream for a time and backed water over Point Grove Road to such a depth that the roadway culvert and embankment were a very minor obstruction.

3. The Point Grove Road culvert becomes a controlling restriction, if the railroad restriction is remedied. A storm equivalent to that of August 1955 would put water running about 2.5 feet deep over the roadway surface.

4. The channel of Great Brook, although overgrown, is sufficiently wide to cause no appreciable obstruction to flows level with Point Grove Road. Flows below this level should cause no damage.

5. During times of great storms, the conditions in Great Brook should be aggravated as little as possible by outflow from the Lakes. This has unquestionably been the past condition. The outlet has always been restricted to such an extent that the main part of the lake inflow has been stored and drawn off gradually.

Additional culvert area would be the only remedy for the above described conditions. There is ample channel room for a second culvert so that the present culverts could remain in place. The areas required are shown on Plate II.

(b) Outlet to Lakes. - The failure at North Pond, in the early morning of August 20, 1955 occurred after all of the surface run-off was in the lakes. The groundwater flow was still coming in strongly, however, so that the lakes were still rising, but the additional rise would have been insignificant. It is thus evident that very little additional free-board on the plug in the north end would have saved the disaster.

North Pond can be restored and an outlet constructed to carry off the floodwaters safely in one of two manners. Each has certain advantages and disadvantages.

(1) Alternative No. 1 (Plate VI) Reconstruct a plug in the north outlet. Reconstruct the present outlet to Great Brook and raise the roadway at the outlet (Berkshire Ave.) to form a safe dam. Raise and strengthen the dike at the south end.

This would restore the lakes to their previous condition, except that the restraining dikes would be higher and stronger. The outlet structure would be more substantial and considerably larger than the present corrugated iron culvert but it would still restrict the outflow to a nominal amount. The lakes would thus continue to have their historic function as a flood storage reservoir.

The disadvantage of this scheme is in the length of time required for the lakes to draw down after a major rise. Plate V illustrates the condition for a storm similar to that of August 1955. For a major rise in the early fall, the lakes would very likely be higher than normal until the summer of the next year.

(2) Alternative No. 2 (Plate VII) Construct a spillway in the North outlet with an improved channel to Great Brook. This would require an enlarged culvert under Longyard Road. It would also require an enlarged culvert under Point Grove Road in order to draw the flow from Middle and South Ponds into North Pond. The new outlet to Great Brook and the strengthened dike at the south end would be constructed the same as for Alternative No. 1.

The spillway at the north end would be set at normal lake level so that the ordinary flows would continue to go through Great Brook and only the overflow due to a rise in the Lakes would go out the north outlet.

The advantage of this scheme is in the speed with which the lakes drop to normal level after a rise. There would also be less rise in the lakes. Both of these would diminish the difficulties with flooded cellars and other similar nuisances around the shore of the lake. Plate V illustrates the pattern of rise and fall for a storm similar to that of August 1955. It will be noted that the spillway would decrease the maximum rise by 0.8 feet for such a storm.

The disadvantage of the scheme is in its cost. Also, it would add about 1,000 c.f.s. to the streams below approximately at the time of maximum flood.

4. CONCLUSIONS AND RECOMMENDATIONS. - Based on the study, the following conclusions and recommendations are made:

(a) Great Brook Channel. New culverts to alleviate property damage due to flooding of Great Brook Channel, as shown on Plate II, are estimated to cost about \$119,000. The amount of property damage, as we have been informed of it, will not justify this expenditure. Nor would a materially lesser expenditure be of any material benefit. It is concluded, therefore, that no major program of improvement is warranted at this time.

The channel has not been investigated in detail to ascertain whether or not there are minor nuisances which could be abated by minor improvement.

(b) Lake Outlet. It is recommended that the Lakes be restored by construction of a plug in the north outlet; that the present outlet to Great Brook be improved and strengthened; and, that the dike at the south end be raised and strengthened; all substantially as outlined under Alternative No. 1 (Plate VI). It is estimated that this would cost about \$51,500 as compared with \$171,300 for an auxiliary spillway and its necessary appurtenances (Alternate No. 2, Plate VII).

Sufficient benefits are not apparent to warrant the extra costs for the more expensive scheme. Nor is it certain that added damages downstream would not offset any benefits the spillway scheme might offer the lake property.

(c) Lake Levels. At present the lakes are approximately at Elevation 225.3, U.S.G.S. Datum. The levels were reported to have been raised one to two feet during recent years when a bridge outlet to Great Brook was replaced by the present culvert outlet. There appears to be some dissatisfaction with the present levels among the adjacent property owners.

No reason is known for establishment of the lake level, except to the satisfaction of the property owners so that it is recommended that the local officials be allowed to decide the point. The question would be "whether the property owners prefer the lake levels as they now are, or whether they would like to have them lowered, say one foot, and thus have them approximately the same amount lower in case of flood.

Theoretically, the dike levels which have been shown on the drawings could be lowered if the lake levels are lowered. Such is not recommended, however, on account of the uncertainty of future changes.

5. DRAINAGE AREAS. - The following is a breakdown of the drainage area up to the N.Y., N.H. & H. Railroad Crossing of Great Brook just south of Southwick Station:

	<u>Sq. Mi.</u>	<u>Acres</u>
<u>WATER SURFACE</u>		
North Pond	.073	46.5
Middle Pond	.431	276.0
South Pond	.221	141.5

Total Water Surface (El.225)	.725	464
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LAND SURFACE (Directly into Lakes)

West Side of Lake	.862	552
East Side of Lake	2.618	1,675

Total Land Surface	3.480	2,227
--------------------	-------	-------

TOTAL DRAINAGE AREA INTO LAKES	4.205	2,691
--------------------------------	-------	-------

DOWNSTREAM FROM LAKE OUTLET

Great Brook Proper	1.850	1,184
Johnson, Tuttle & Pearl Brooks	5.630	3,603
Brook thru Southwick Center	.786	504

TOTAL DOWNSTREAM FROM LAKE OUTLET	8.266	5,291
-----------------------------------	-------	-------

TOTAL DRAINAGE AREA UP TO R.R.CROSSING	12.471	7,982
--	--------	-------

The reservoir area at Elevation 230 is scaled from the U.S.G.S. Map as 640 acres. The Reservoir Volume Curve, Plate IV, was thus developed, assuming straight line areal variation between lake surface level and Elev. 230.

6. RAINFALL

(a) August 1955 Storm. - The site is very close to the point of maximum rainfall for the storm of August 18-19, 1955. Plate I shows cumulative rainfall graphs for nearby recording gages; Springfield, Mass., Norfolk, Conn., and Knightsville Dam, Mass. The following are the amounts recorded at nearby non-recording station, readings being taken in all cases at 8 A.M. on the day noted:

	<u>18</u>	<u>19</u>	<u>Total</u>
Westfield Sanatorium, Mass.	1.25"	18.15"	19.40"
Granville, Mass. (5 mi. northwest)	1.57"	16.81"	18.38"
Blandford, Mass. (14 mi. northwest)	2.00"	15.60"	17.60"
Torrington, Conn. (12 mi. south)	3.77"	9.52"	13.29"

An isohyetal map of the storm, prepared by the U. S. Weather Bureau indicates that about 18.0" fell in the vicinity of Congamond Lakes.

(b) Design Storm. The August 1955 storm greatly exceeded all records for the region. Meteorological conditions, even for a hurricane storm, were exceptional. A design storm with a total fall of 18.0" has therefore been taken, with distribution paralleling that of Aug. 18-19, 1955. Plate I shows a graph of the assumed distribution.

Assumption of a greater rainfall is not considered warranted for basic design. Freeboard will be allowed on all dikes and other similar structures, however, in order to give a reasonable factor of safety over and above the basic design.

7. STORM RUN-OFF

(a) Inflow to Lakes. Inflow to the lakes may be considered to consist of groundwater inflow, direct fall on the lakes, surface run-off, and, for the August 1955 storm, inflow at the Great Brook outlet and over the south end dike.

The Congamond Lakes have only one small brook as a feeder. It thus appears that they are largely fed by subsurface springs. Under this condition, an exceptionally large percentage of a rainfall would reach the lakes as groundwater inflow and, due to the narrowness of the drainage basin, a large percentage of the groundwater would be released rapidly. This condition is confirmed by records for the August 1955 storm.

On account of the large proportion of water surface, the direct rainfall on the lakes is a significant factor. The equivalent rate of inflow is a direct function of the rate of fall and reaches the lakes, of course, without any lag in time.

Surface run-off from the design storm has been estimated by theoretical formulae, balancing the results as nearly as possible with the Aug. 1955 storm. For this, the only significant records are:

Maximum Elevation of Lakes 229.3

Time of failure (presumably at max. elev.) 1 A.M., Aug. 20, 1955.

During the Aug. 1955 storm, flow of Great Brook is reported to have been reversed for a time. Water in the channel reached a height about one foot greater than the highway at the outlet (Berkshire Ave.) and flowed over the highway into the lakes. This is confirmed by the elevation of a flood mark taken near Point Grove Road (see Plate II). The condition, however, could have occurred only at the peak of the flood, and could not have been of long duration.

A similar occurrence is reported at the south end dike. Here there is no record of the exact height or duration of the inflow. The lakes finally reached a height greater than the dike and there is evidence of outflow so that the duration of inflow must not have been great.

Neither of these latter two inflows was a major factor in the rise in the lakes.

A hydrograph of the design storm, following the above considerations, is shown on Plate III. The more or less arbitrary assumption was made that

groundwater inflow would be 200 c.f.s., or at the rate of 0.09"/hr., at the time the surface run-off is complete. At that time the total retention would be 8.6 inches, or 0.33" per hour of significant rainfall during the storm. The ground water is assumed to taper off in rate to 10 c.f.s. one week later. At that time the total retention would be 4.7 inches, or 0.15" per hour of significant rainfall.

From the above, assuming the Aug. 1955 storm to be similar, the following balance of inflow and outflow volume is made, up to the time of failure of North Pond.

TOTAL INFLOW - BY RAINFALL

Direct fall on Lake	7,870	hr.	sec.	ft.
Surface Run-off (7.60")	17,070	"	"	"
Groundwater Inflow (1.80")	4,060	"	"	"
Overflow from Great Brook	3,300	"	"	"
Overflow from South Dike	900	"	"	"
Total	33,200	hr.	sec.	ft.

TOTAL INFLOW - BY RISE IN LAKES & OUTFLOW

Storage in Lakes	28,000	hr.	sec.	ft.
Outflow, Great Brook before reversal	1,450	"	"	"
Outflow, Great Brook after reversal	1,550	"	"	"
Outflow, over South Dike	1,200	"	"	"
Outflow, Out North Channel	1,000	"	"	"
Total	33,200	hr.	sec.	ft.

The above amount of surface run-off gives an infiltration index of 0.50"/hr. which is not unreasonable. The distribution of this run-off was based on unit hydrograph of the several distinct areas.

(b) Inflow to Great Brook. Inflow to Great Brook up to the railroad crossing near Southwick Station can be broken down into the following components:

- Outflow from the Lakes
- Inflow from Johnson Brook (incl. Tuttle & Pearl Brooks)
- Inflow from brook through Southwick Center
- Inflow from remaining drainage area (Great Brook Proper)

It is desirable to remedy the condition allowing reversal of the flow of Great Brook into the lakes (except for what might back through the outlet culvert). On the other hand, it can be assumed that the lakes would be contributing a negligible amount to Great Brook flow during the peak of a major storm.

There are no available data from which the inflow into Great Brook during the Aug. 1955 storm can be computed with accuracy. The U. S. Geological Survey gives a peak flow of 3,610 c.f.s. from 19.3 sq. mi., the point of measurement evidently being downstream from the area under consideration. Just how this peak was affected by storage above the obstructions, or by failure of the obstructions, cannot now be evaluated.

Theoretical inflows were computed from unit hydrographs based on Snyder's formulae. From these, the following values are obtained, depending on differing assumptions as to infiltration rates. (Flows from the smaller areas are at the time of peak of the larger area).

	Infiltration Rate		
	0.15"/hr.	0.20"/hr.	0.30"/hr.
Johnson Brook	4,000 cfs	3,850 cfs	3,500
Great Brook Proper	1,280 "	1,200 "	1,100
Brook through Southwick Center	600 "	550 "	520
Total	5,880 cfs	5,600 cfs	5,120 cfs

The Kinnison-Colby "rare" flood would have a computed peak of 2,380 cfs.

From the above, an outflow of 4,000 cfs is considered safe and reasonable for design of a culvert at the railroad crossing, taking into account the reduction in peak due to storage in Great Brook Channel.

8. RISE IN LAKE LEVELS. - A 50 foot length of spillway at the north end is about the largest that can be constructed reasonably. An 8-foot long spillway at the Great Brook outlet is about the optimum that will serve the dual purpose of limiting outflow during storm peaks and lowering the lakes to normal within an allowable time after a major rise. The design storm (Plate III) was therefore routed over these spillways with results as shown on Plate V. This plate shows the cumulative volume of inflow from the design storm and the cumulative outflow for the two spillway designs, with corresponding Lake elevations. It will be noted that the lakes would rise to Elev. 229.1, or about 0.2 ft. below the level of Aug. 19, 1955, for the outlet at Great Brook only. With the spillway at the north end, the lakes would rise to Elev. 228.3, a decrease of 0.8 ft. over the other design.

The Great Brook outlet would discharge about 210 c.f.s. at maximum level of the lakes but only about 120 c.f.s. at the peak of the storm. The 50-foot spillway would discharge about 1,050 c.f.s. at maximum level of the lakes.

9. COSTS

(a). Great Brook Channel. Detail cost estimates for culverts at the railroad crossing and at Point Grove Road as shown on Plate II are

summarized in the following:

Railroad Culvert	\$86,400
Point Grove Road Culvert	<u>32,600</u>
Total	\$119,000

(b) Lake Outlet, Alternative No. 1 - Table A shows detail cost estimates for the dikes and protective works proposed under Alternative No. 1 (Plate VI). A summary is:

Dike at North End	\$ 24,900
Great Brook Outlet	21,600
Dike at South End	<u>5,000</u>
Total	\$ 51,500

(c) Lake Outlet, Alternative No. 2. Detail cost estimates for the various component parts required by the north end spillway scheme, Alternative No. 2, Plate VII, are summarized below:

Great Brook Outlet	\$21,600
Dike at South End	5,000
Spillway Dam at North End	67,200
Spillway Channel at North End	24,700
Culvert, Longyard Road	16,000
Culvert, Middle to North Pond	<u>36,800</u>
Total	\$171,300

TABLE A

CONGAMOND LAKES
ALTERNATIVE NO. 1
ESTIMATE OF COST

<u>ITEM</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Amount</u>
I. <u>DIKE AT NORTH END</u>					
1.	Temporary Closure at Point Grove Rd.	L.S.	-	-	\$ 1,500
2.	Diversion North Pond Inflow	L.S.	-	-	800
3.	Excavation	400	cu.yds.	1.50	600
4.	Compacted Fill	5,670	" "	2.75	15,600
5.	Gravel Filter	50	" "	6.00	300
6.	Riprap	100	" "	9.00	900
					<u>\$19,700</u>
	Engineering & Administration	10	%		1,970
					<u>\$21,670</u>
	Contingencies & Unforeseen	15	%		3,230
					<u>3,230</u>
	Total				<u>\$24,900</u>

II. <u>GREAT BROOK OUTLET</u>					
1.	Care and handling of Water	L.S.	-	-	\$ 500
2.	Excavation	670	cu.yds.	1.25	840
3.	Backfill & Roadway Fill	2,450	" "	2.25	5,500
4.	Concrete	48	" "	35.00	1,680
5.	Forms	2,200	sq.ft.	1.25	2,750
6.	Reinforcing Steel	5,300	lbs.	0.13	690
7.	Roadway Surfacing	1,200	sq.yds.	3.00	3,600
8.	Shoulder and Misc. Work	L.S.	-	-	1,500
					<u>\$17,060</u>
	Engineering & Administration	10	%		1,700
					<u>\$18,760</u>
	Contingencies & Unforeseen	15	%		2,840
					<u>2,840</u>
					<u>\$21,600</u>

III. <u>DIKE AT SOUTH END</u>					
1.	Access	L.S.	-	-	\$ 1,000
2.	Fill	1,200	cu.yds.	2.50	3,000
					<u>\$4,000</u>
	Engineering & Administration	10	%		400
					<u>\$4,400</u>
	Contingencies & Unforeseen				600
					<u>600</u>
					<u>\$5,000</u>



The Commonwealth of Massachusetts

Department of Public Works

Division of Waterways

100 Nashua Street, Boston 14

June 5, 1956

*Rec'd
June 7, 1956*

Hampden County Commissioners
Court House
Springfield, Massachusetts

Gentlemen:

Enclosed please find a copy of a report relative to improving Congamond Lakes in the town of Southwick, which was prepared for the Department by the consulting firm of Charles T. Main, Inc.

I am submitting this for your review and consideration and will plan to hold a meeting in Southwick next week between local and State authorities to further discuss this matter in order to decide what type of work should be undertaken by the Commonwealth. I will notify you as to the date and time of this proposed meeting.

Very truly yours,

Rodolphe G. Besette
RODOLPHE G. BESSETTE

Director, Division of Waterways

Enc.



The Commonwealth of Massachusetts

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LEGISLATIVE RESEARCH BUREAU

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Legislative Research Bureau

HERMAN C. LOEFFLER, *Director*

June 7, 1956

County Commissioners of
Hampden County
Springfield, Mass.

Rodolphe G. Bessette, Director, Division of Waterways, has asked me to arrange a conference to be held in Southwick sometime next week between the Southwick Selectmen, the Hampden County Commissioners and Representatives Cowing and Porter to further discuss a report made by Charles T. Main, Inc. relative to providing a new outlet for Congamond Lakes in the town of Southwick, and decide the type and extent of work that should be undertaken by the Department to correct the problem in this area.

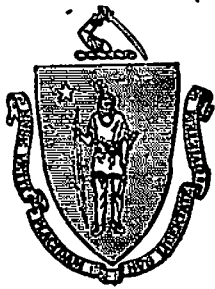
Inasmuch as the Representatives and I are at the State House attending legislative sessions from Monday through Thursday, Friday is the only day available to us to meet with this group. I therefore advise you that all parties named in this letter are requested to meet at the Southwick Town Hall at about three o'clock on Friday, June 15. This is not a public hearing and I trust that only the county commissioners, the selectmen, and members of the legislature, together with the Director of the Division of Waterways, will be the only ones present. Director Bessette has another engagement in the town of Barre at 11 that morning and hopes to be able to reach Southwick by 3 o'clock that afternoon.

Cordially yours,

Ralph Lerche
Senator Ralph Lerche

RL:mm

*Also West Springfield
Water Board*



The Commonwealth of Massachusetts

Senate

State House • Boston

Received
June 14, 1956
in Hampden
Cty Comms' Office

June 13, 1956

✓
TO: Hampden County Commissioners, The Southwick Board of Selectmen,
The West Springfield Water Commission, Representative George W.
Porter of Agawam, Representative William A. Cowing of West
Springfield, and Rodolphe G. Bessette, Director, Division of
Waterways.

Because of the funeral of former Governor Joseph B. Ely to be held at Westfield at 2:00 P.M. Friday afternoon, June 15th, I have this day contacted Rodolphe G. Bessette, Director of the Division of Waterways, D.P.W., and he has suggested that the meeting scheduled to be held at the Town Hall in Southwick at 3:00 P.M. this Friday, be postponed for one week. The same group is to meet at 2:00 P.M. Friday afternoon, June 22nd, at the Southwick Town Hall.

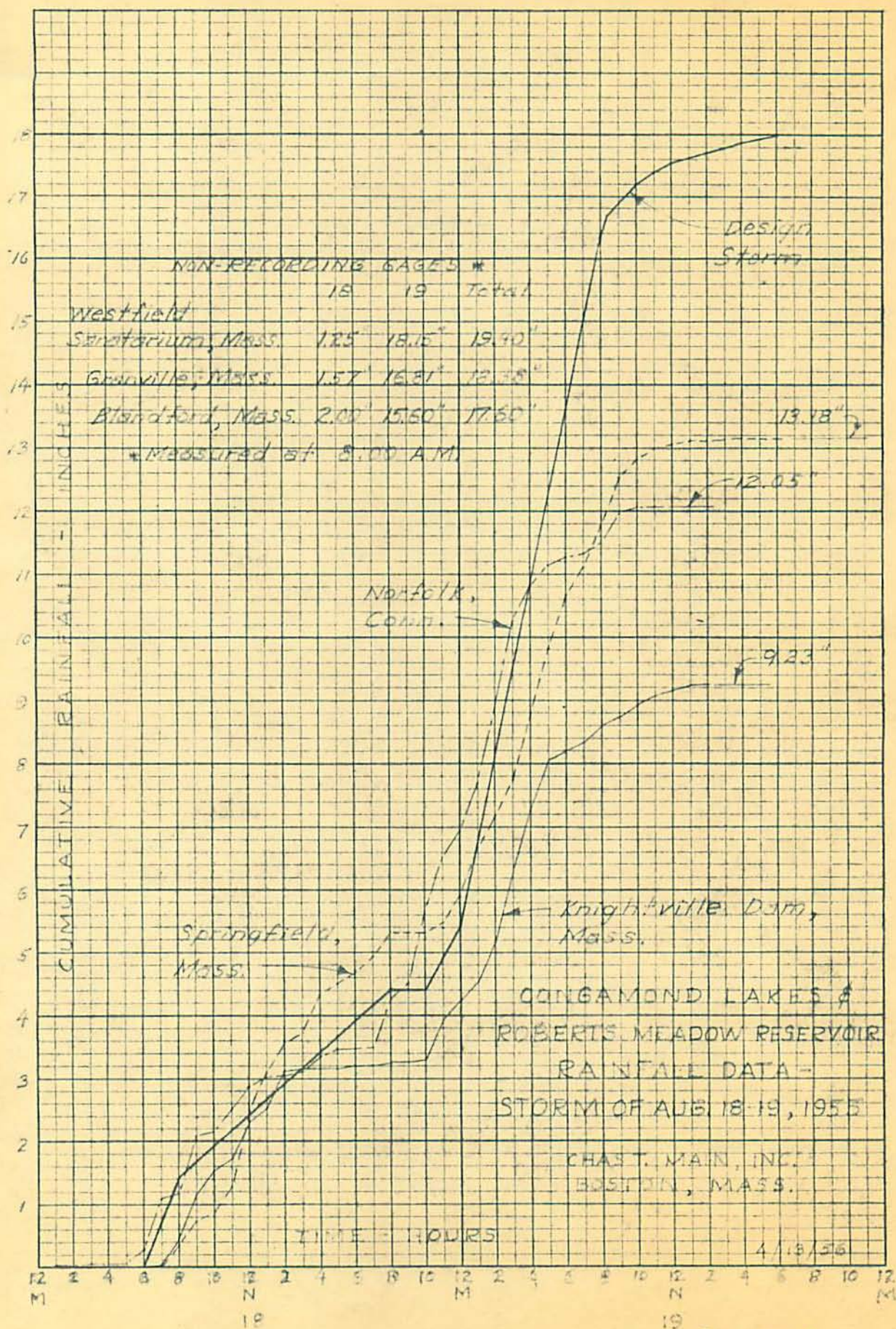
Sincerely yours,

A handwritten signature in cursive script that reads "Ralph Lerche".

RALPH LERCHE

Senator, Hampden, Hampshire and
Berkshire District

RL/md





230

229

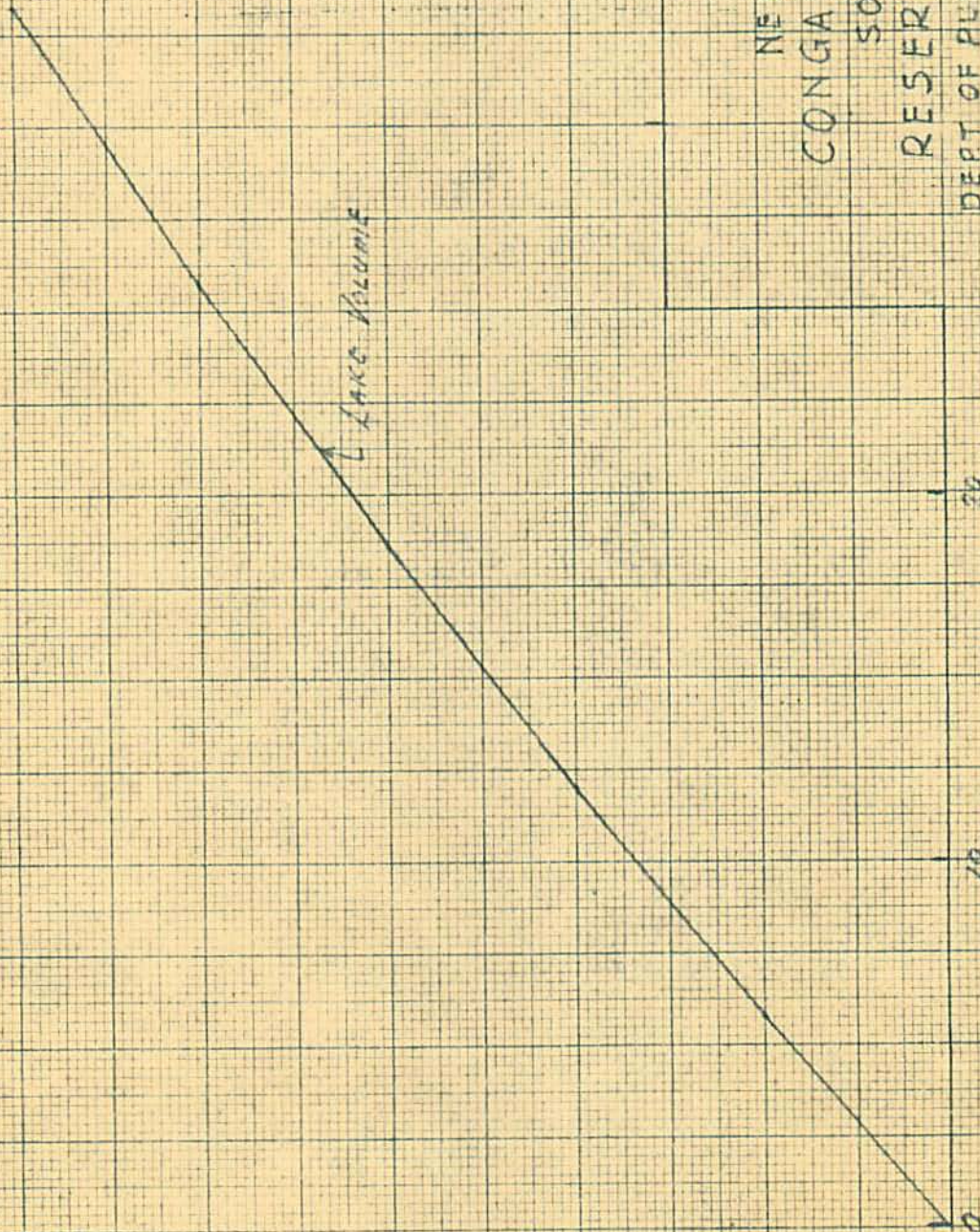
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ELEVATION - FT



LAKE VOLUME

NEW OUTLET

CONGAMOND LAKES

SOUTHWICK

RESERVOIR VOLUME

DEPT OF PUBLIC WORKS OF MASS.

DIVISION OF WATERWAYS

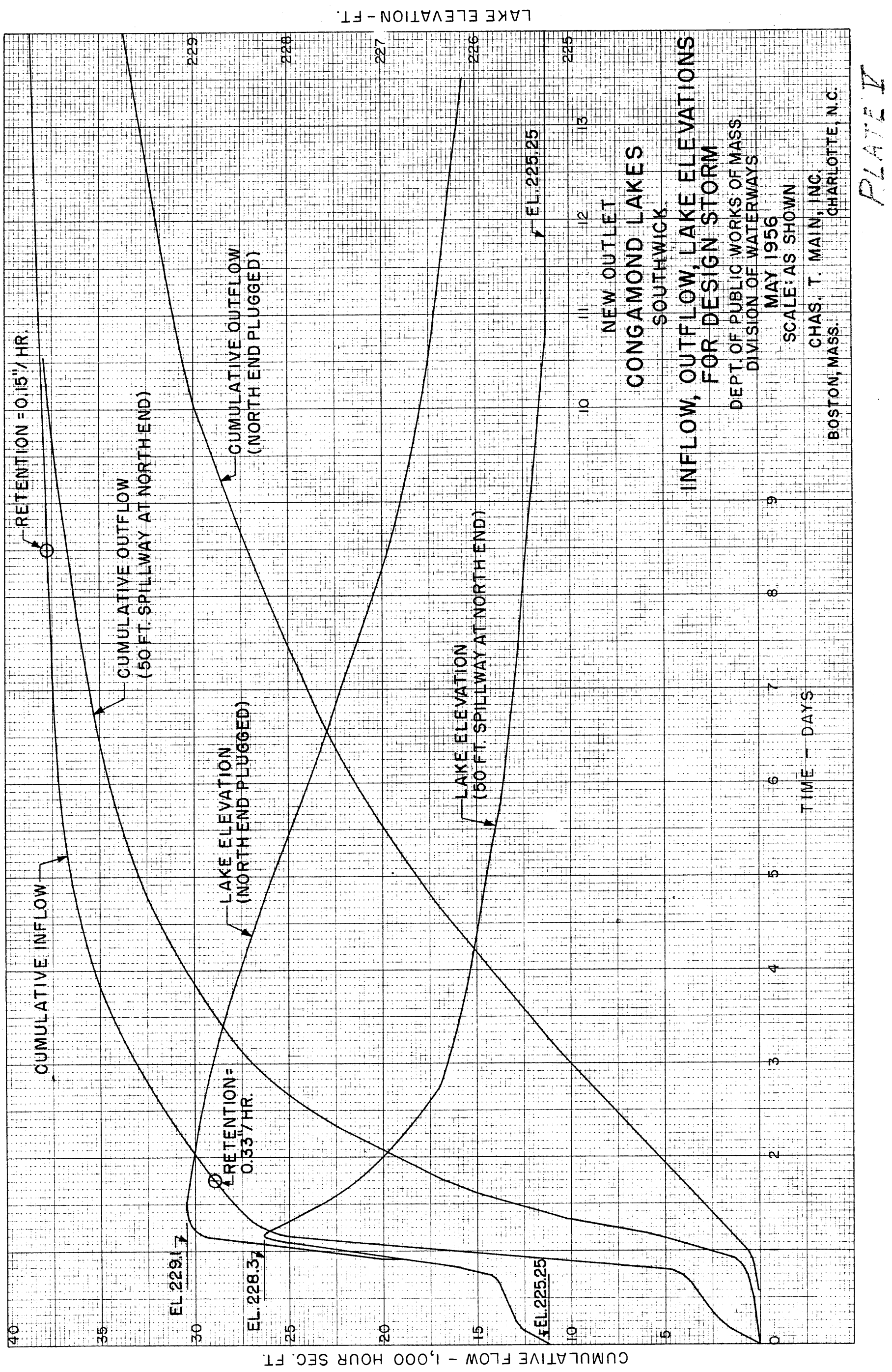
MAY 1956

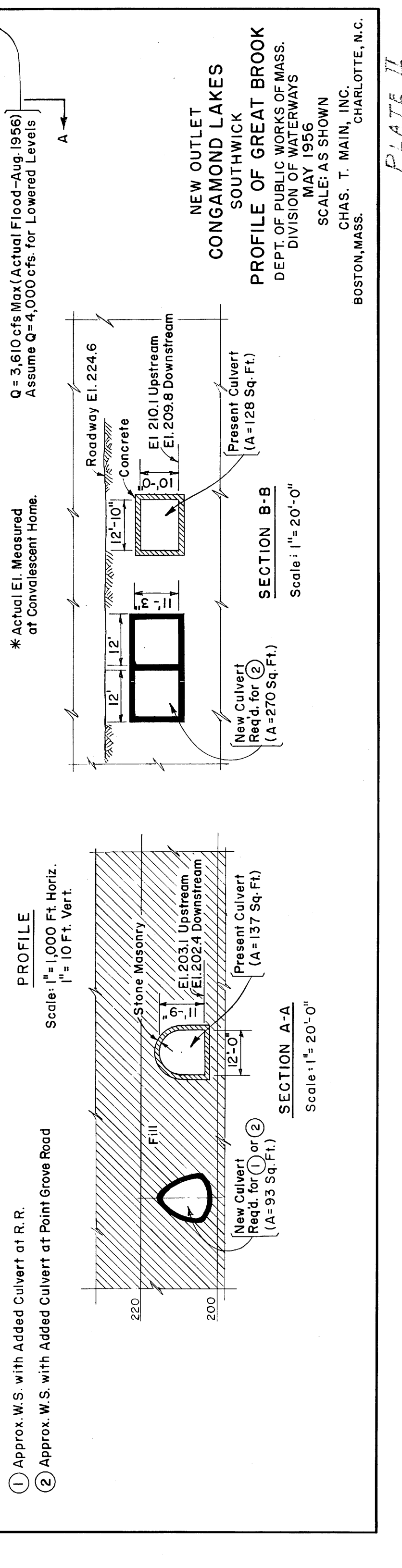
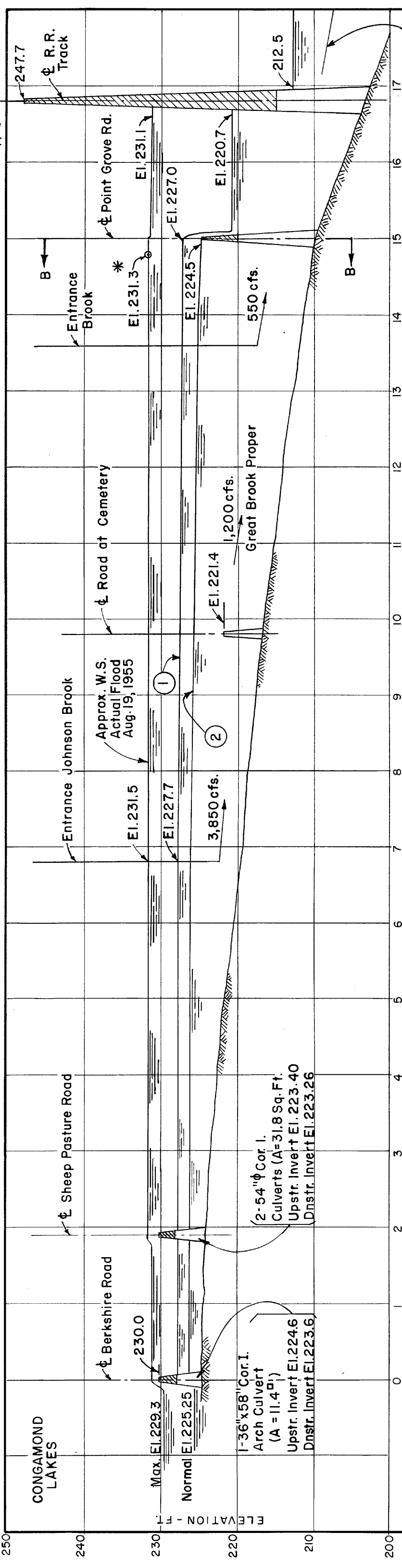
CHAS. T. MAIN, INC.

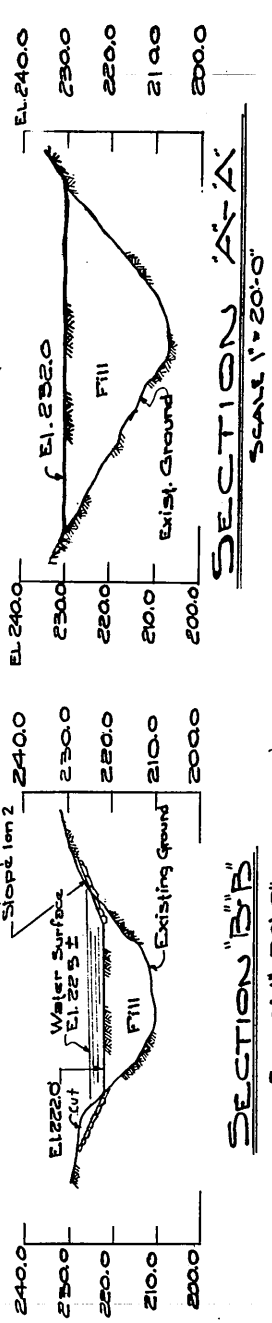
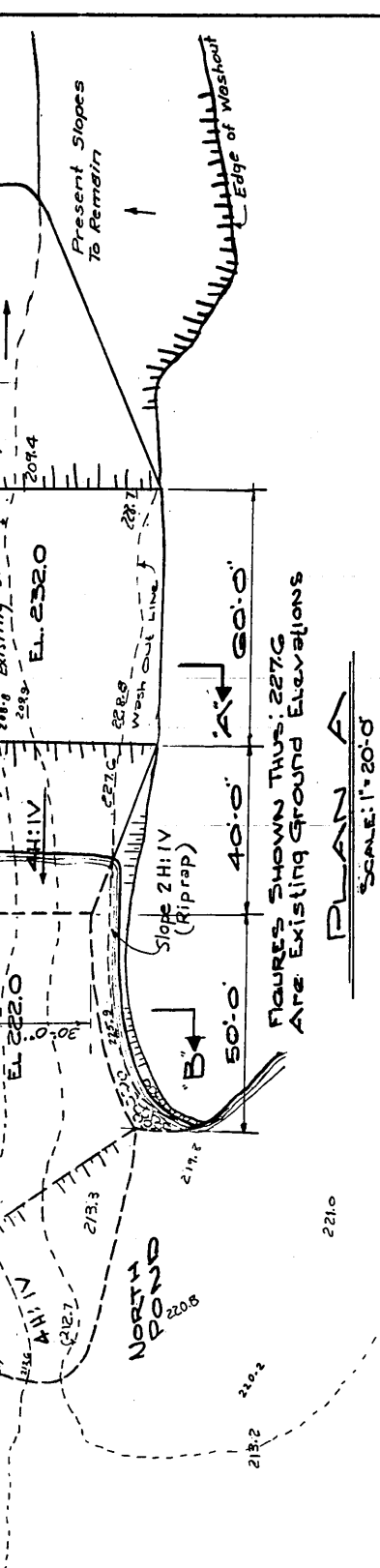
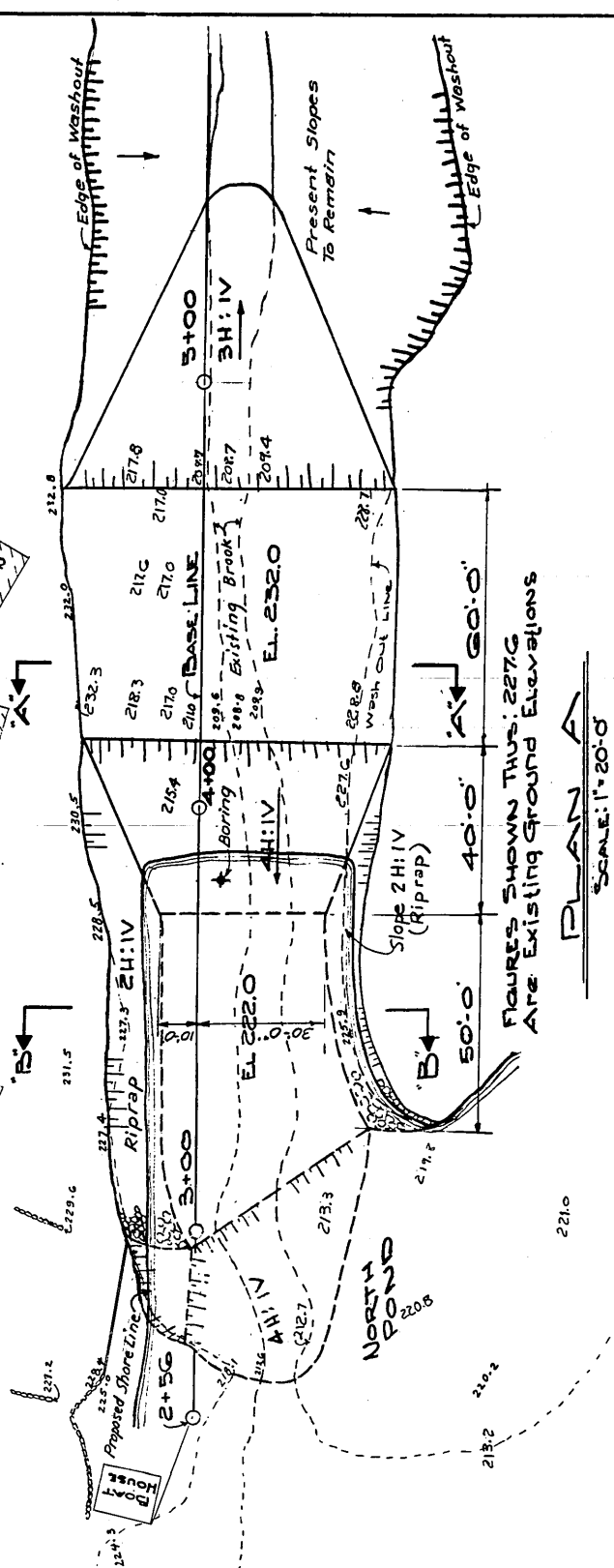
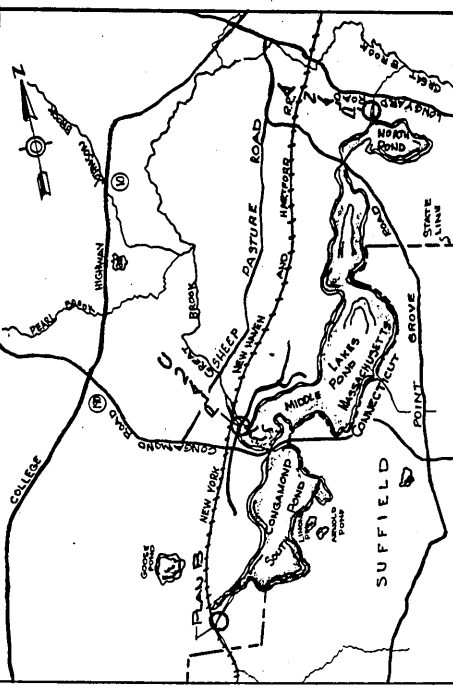
BOSTON, MASS.

CHARLOTTE, N.C.

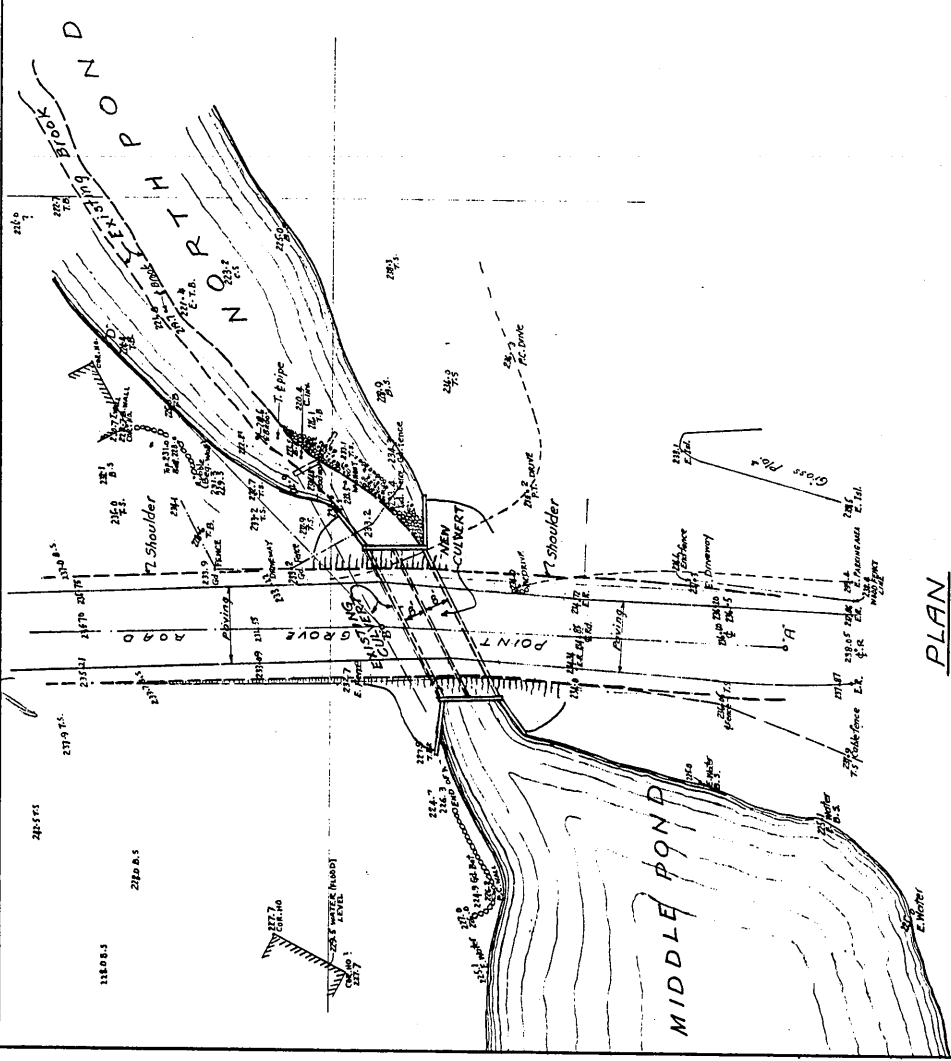
PLATE II



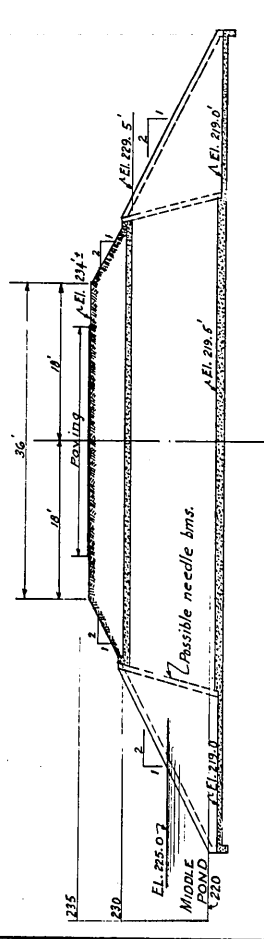




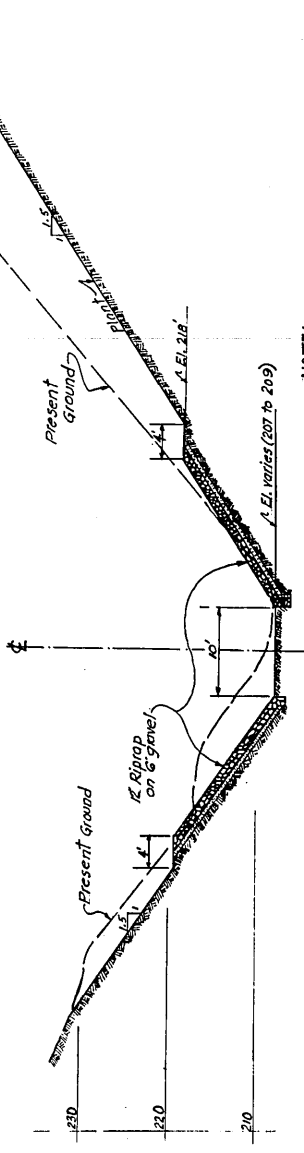
NEW OUTLET
CONGAMOND LAKES
SOUTHWICK
ALTERNATIVE NO. 1
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
MAY 1956
SCALE: AS SHOWN
CHAS. T. MAIN, INC.
BOSTON, MASSACHUSETTS CHARLOTTE, NORTH CAROLINA



PLAN
PROPOSED NEW CULVERT
POINT GROVE ROAD
Scale: 1" = 30'

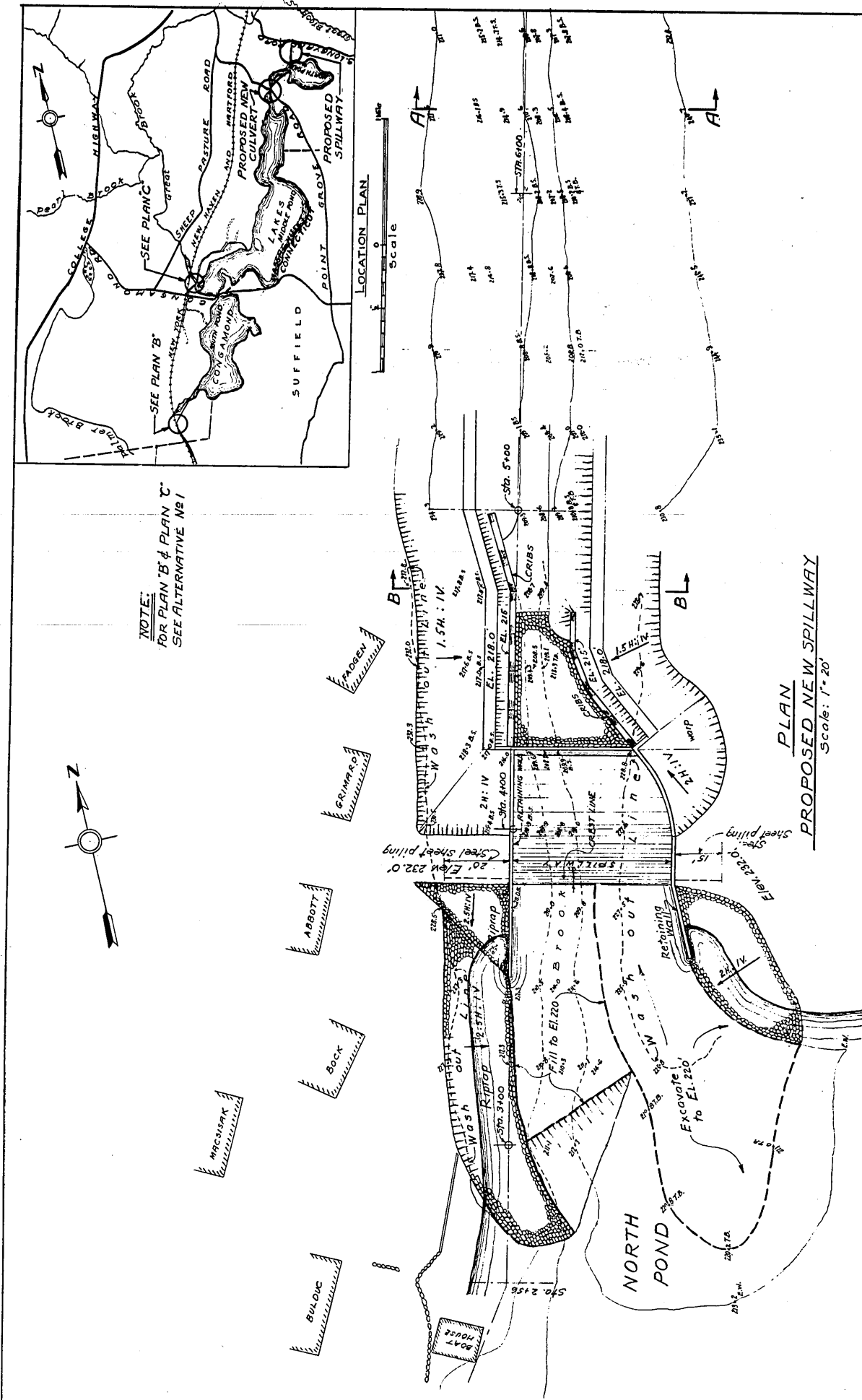


SECTION THROUGH CULVERT
Scale: 1" = 10'

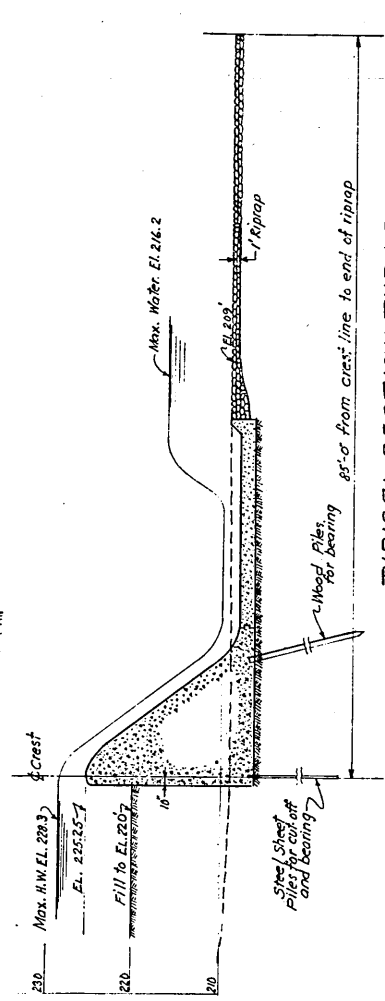


SECTION A-A (TYPICAL FOR 10' WIDTH)
(20' WIDTH SIMILAR EXCEPT NO RIPRAP)
Scale: 1" = 10'

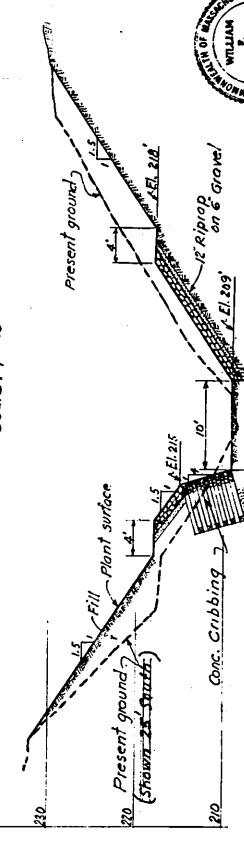
NOTE:
10' Width to Sta. 6+66
Transition from 10' to 20' to Sta. 9+46
20' Width for remainder of distance
Culvert at South Longwood Road to be
increased from 4ft to 10ft Dia.



PLAN
PROPOSED NEW SPILLWAY
Scale: 1" = 20'



TYPICAL SECTION THRU DAM
Scale: 1" = 10'



SECTION B-B
Scale: 1" = 10'

NOTE:
FOR PLAN 'B' & PLAN 'C'
SEE ALTERNATIVE NO. 1

NEW OUTLET
CONGAMOND LAKES
SOUTHWICK
ALTERNATIVE NO. 2
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
MAY 1956
SCALE: AS SHOWN
CHAS. T. MAIN, INC.
BOSTON, MASSACHUSETTS
CHARLOTTE, NORTH CAROLINA



WESTFIELD PAGE

This Will Be a Beautiful Lake Again



A new picture of the dry bed of North Pond at Congamond Lakes created as some of the damage of the Aug., 1955, floods. It will shortly be transformed to the beautiful pond it has always been, according to plans now in possession of the Hampden County Commission. By the erection of an earthen plug at the drainage point off the bottom of the picture, the Division of Waterways of the State Department of Public Works expects to restore the level of the pond and also restore the numerous summer camps and permanent homes to their previous value.

PROMOTED



CAPT. ALBERT N. WEIDHAS

Westfield, June 8—Mrs. Helen N. Weidhas of 91 Orange St. has received word of the promotion of her son, Albert N. Weidhas, to the rank of captain in the Army. He is currently studying at the Language School at Monterey, Cal., where he is majoring in advanced Japanese.

Capt. Weidhas attended Dean Academy prior to his enlistment. He graduated from Officer's Candidate School and served with an armored division in Korea where he was wounded and was awarded the Purple Heart. While convalescing in Tokyo, Japan, he began the study of elementary Japanese and during his advanced study is tops in his class, having excelled three Japanese in their own language.

Capt. Weidhas is married to the former Katherine Payne, daughter of Mr. and Mrs. Charles Payne of Portland, Me. They have a daughter, Karen Marie.

Congamond Restoration Plans Being Prepared

County Commission Studies Report on Conditions Before Deciding on Flood Project

Rudolph G. Bessette, director of the Division of Waterways of the State Department of Public Works, has forwarded to the Hampden County Commission a study of conditions at Congamond Lakes preparatory to deciding on procedures for needed construction to restore the valuable recreation spot, which lost a great deal of its value in the August, 1955, floods.

At the behest of the state department, Charles T. Main, Inc., engineers, have prepared an exhaustive report embracing rainfall and drainage conditions and the suggested enlargement of culverts and reconstruction of earthen dams, which will restore not only the North Pond to its previous state but will make safe all outlets of the immense drainage area around the lakes.

After study by the County Commission there will be a public meeting in Southwick at a time and place still to be announced for the purpose of determining the type of work to be undertaken by the Commonwealth.

In the report, the engineering firm estimates that the earthen plug to recreate North Pond, the reconstruction and enlargement of several culverts and the raising of roadways will cost about \$51,500.

It is also noted in the report that the surface area of the three ponds total 464 acres, which is in the middle of an extensive drainage area.

The engineers noted that North

Pond did not go out until six or eight hours after the torrential rain stopped, giving rise to the belief that not only the rainfall and the drainage into the pond caused the washout, but the inflow of a considerable quantity of ground water. Commission Chairman William H. Stapleton and his fellow members, Ralph P. Walsh and Thomas F. Sullivan, will announce the time and place of the public meeting, which is recommended, as soon as word comes from Director Bessette.

Final Assembly Today for High School Seniors

Parents of Robert Brew Donate \$100 in Memory Of Their Son

Westfield, June 8—More than just a touch of sadness pervaded the final assembly program of Westfield High School seniors this morning when Class President Wayne Damron read a message from Mr. and Mrs. George Brew with respect to the recent death of their son, Robert, who was to have been a member of the graduating class.

Also it was announced that \$100 had been donated in memory of their son, to be used at a future date for use in the industrial arts and safety education programs.

George Velis announced the class gifts to the school which included a Bogen amplifier and speakers for the auditorium which will also be used at Municipal Field for the football games and a backdrop for the auditorium stage. The class also

made a gift of a wheel chair to the Noble Hospital.

President Damron presided the program with Vice-President Leonard Skerker reading Scripture and Secretary Chr. Bednarsky giving the prayer. Historian Mary McGowan led the flag salute. The program continued with the singing of the class "Halls of Ivy," with Wayne Damron as class president.

The school will graduate a class of 198 tonight. Diplomas will be awarded to 123 girls and 75 boys at commencement exercises to start at 8 in the Armory on Franklin St. On program is included in the class speakers will be the three ranking honor students, Le B. Skerker, valedictorian; Sandman, salutatorian; and

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CHEAPIES

Congamond Lakes Dams & Dike



1936 Southwick

Located on Congamond Lakes.

Abutters	Congamond Heights Association
City/Town	Southwick
Dam	Congamond Lakes Dams & Dike
Streets	Point Grove Road
Streets	Berkshire Street
Water	Congamond Lakes
Water	North Pond
Water	Middle Pond
Water	Great Brook
Water	South Pond
Water	Westfield River

"Taken from the
REPORT
HAMPDEN COUNTY DAMS
1936"

"Congamond Lakes.

Although the Congamond Lakes have been raised in height above their natural state by a small dam across the outlet into Connecticut, they were previously natural bodies of water almost as large as they are at present, so that they will be considered here as natural ponds.

These lakes are situated in the southeast part of Southwick, have a drainage area of about four square miles, and cover an area of about five hundred and thirty acres.

Congamond Lakes Dam.

At the extreme south end of the Congamond Lakes is a low earthen dam or dike, which has raised the lakes and prevented them from draining into Connecticut. It is an earthen structure about sixty feet in length and six feet in maximum height. The dam is ten feet in width on top and has no spillway or overflow.

It appears that considerable litigation over the drainage from these lakes occurred in the early seventies, between the States of Massachusetts and Connecticut, with the apparent result that the courts sanctioned the building of this dam in its present location. Although the town of Southwick was consulted and some of the oldest inhabitants interviewed, it could not be learned who is the owner of the structure, or who is responsible for its maintenance.

These lakes drain into Great Brook, a tributary of the Westfield River, and the outlet into the brook is controlled by a head gate structure.

In their natural state, that is before they were raised, it would seem that the overflow water from these lakes passed from the extreme south end of the lakes, at the site of the present dam or dike, into the State of Connecticut."

CLARENCE A. THOMPSON
TAX CONSULTANT - ACCOUNTANT

TELEPHONE 4-1226

175 STATE STREET
SPRINGFIELD 3, MASS.

November 28, 1946

The Honorable,
The Commissioners of Hampden County,
Hampden County Court House,
Springfield, Massachusetts.

Gentlemen:

On November 21, 1946, I discussed with you the situation prevailing at the southerly end of the Congamond Lakes, in Southwick, Massachusetts. You suggested I reduce to writing my narrative, and if the events were as I described them you would undertake remedial measures, if within your jurisdiction, or would see that the authorities having jurisdiction of the matter were notified. In compliance with your suggestion I am presenting this communication.

About 100 years ago a company was organized to operate a canal between Northampton, Massachusetts, and New Haven, Connecticut. The route of this canal went through the Congamond Lakes. The remnants of this ditch may be observed at various places in Holyoke, West Springfield, and are clearly discernible at certain places in the Congamond Lakes.

At some time in the past the level of the Congamond Lakes was artificially raised three or four feet by the erection of a dam at the outlet of the lakes on the westerly shore of the Middle Pond, north of Saunder's Boat Livery. Also, at some time during the intervening years the Southern Berkshire Ice Company acquired virtually the entire westerly shore of the Middle and South ponds of the Congamond Lakes.

Whether the level of the lakes was raised by the Canal Company or the Ice Company I am unable to say. I am inclined to believe it was done by the Ice Company, since the tow path used by the Canal Company is under water, and it seems unlikely that the Canal Company would have done that.

Shortly after the canal was finished a railroad known locally as "The Old Canal Line" was constructed paralleling the canal. This railroad promptly put the canal out of business. The story of these two enterprises may be found in a volume entitled "A History of the Connecticut Valley", a copy of which I have, and which I shall be glad to have you inspect if it will be of any assistance to you.

As a result of the two factors above mentioned, namely the excavating for the canal and the raising of the water level in the lakes, there is at present a narrow(about 40 to 50 feet) ribbon of water jutting out of the South Pond in a southwesterly direction which, I estimate, is from one-third to one-half mile long. This ribbon of water runs in a diagonal direction towards the railroad until it reaches the railroad where it is intercepted and impounded by a dike.

On the westerly side of the canal the water has overflowed until it reaches the railroad tracks. Whether this was due to deterioration of the canal walls or to the increase in the water level I do not know, although I feel it is more likely due to the raising of the level of the lake. The land which had overflowed evidently had belonged to the Southern Berkshire Ice Company. In the spring when the water level is high, there is an unbroken surface of water from the South Pond over to the railroad. At this time of the year, when the water level is low, it is still possible to force a canoe from the canal wall to the railroad. The water level in the canal itself is probably never less than eight to fifteen feet, and I have often gone the length of the canal with an outboard motor.

About eight to ten years ago the Southern Berkshire Ice Company went into bankruptcy. In the process of liquidating the assets of the bankrupt, its remaining real estate was sold to the Congamond Heights Associates, Inc., which was operated by one Pollard. This Pollard proceeded to sell lots, in a ruthless fashion, including desirable swimming places, informing the purchasers they owned the shore as far as they could walk out. The result was that these places were posted against use by the general public.

The Registry of Deeds appears to contain no record of a deed from anyone to one Mala, who appears to be the alleged owner of the canal. This appearance is based on the fact that page 45 of Book 20 in the plan room at the County Registry of Deeds shows a plan of part of the development of the Congamond Heights Associates, Inc., and this plan indicates the property outside and south of the area covered by the plan belongs to Mala. Whether my failure to locate a record of the deed was due to my inexperience, or whether the deed was not recorded to avoid attracting attention to it, I cannot say.

It is my contention that the Commonwealth either retained an inseparable interest in the increased surface of the lakes when it granted permission to raise their level, or if such right was not retained, the Commonwealth has acquired an indefeasible title to such surface by pre-emption. The continued use of the canal by fishermen, hunters, trappers and boatists for nearly 100 years has vested in the Commonwealth a title in that area which can only be defeated by returning the lakes to their original level - an idea which would never be tolerated.

My principal interest in the area was its use for the purpose of duck-shooting. During the war, when gasoline and ammunition were scarce, the matter was relatively unimportant. However, my two sons are now eligible to have hunting licenses, and I feel strongly they should be permitted to use the public waters of the State for that purpose, subject only to the regulation of the state Department of Conservation. Incidentally, I have kept a boat on Congamond for thirteen years.

At the time of the interview which you so kindly afforded me, you stated you would have the County Engineer view the location and would await his report. I would like, at this time, to tender my services to him by procuring transportation and accompanying him on his survey. I feel that having some experience in the location I might be helpful in pointing out the particulars he would be interested in, especially the monuments of the state boundaries, in order to establish that the waters are under the sovereignty of Massachusetts. If I can be of assistance, please have your engineer call me at Springfield 4-1226.

Regretting that this document is so lengthy, and appreciating the cordial interest you have shown in this matter, I am

Very sincerely yours,

Clarence A. Thompson
CLARENCE A. THOMPSON.

Original to Honorable Thomas J. Costello, Chairman
Copy to William G. Dwight
Copy to Charles W. Bray

December 14, 1946

Mr. Clarence A. Thompson
Tax Consultant - Accountant
175 State Street,
Springfield 3, Mass.

Dear Mr. Thompson:

In the matter of your letter dated
November 28, 1946, we are referring it to our
Hydraulic Engineer, Mr. James L. Tighe, and as soon
as we receive a report from him, we will notify you.

Very truly yours,

COUNTY COMMISSIONERS

By _____

CWB/N

MEMBER
AM. SOC. C. E.
INST. C. E. GREAT BRITAIN
ENG. INST. OF CANADA

JAMES L. TIGHE

CONSULTING ENGINEER
CALEDONIAN BUILDING, 189 HIGH STREET

HOLYOKE, MASS.

TELEPHONE 5525

MEMBER AM. INST. OF CONSULTING ENGINEERS, INC.

WATER SUPPLY
SEWERAGE
SEWAGE DISPOSAL
ANALYSIS OF WATER

WATER POWER INVESTIGATIONS
AND DEVELOPMENT
DAMS AND POWER INSTALLATIONS
ESTIMATES AND APPRAISALS

December 28, 1946

The Hon. The Board of County Commissioners
Hampden County Court House
Springfield, Mass.

Thomas J. Costello, Chairman,

Gentlemen:

In answer to your letter of Dec. 14th, last, relative to the Congamond Lakes matter, which Mr. Clarence A. Thompson had written you about in a letter dated Nov. 28th, 1946, I wish to state that I had made an investigation of these lakes in 1936 and a report thereon to the County, a copy of which I herewith enclose.

In taking up the matter with Mr. Thompson I advised him to place his case before the State Department of Public Works, (Division of Water-Ways) as the County, I thought, had no jurisdiction relative to water-ways of any kind, except in the safety of their dikes and dams.

Respectfully submitted,

James L. Tighe



The Commonwealth of Massachusetts

TOWN OF SOUTHWICK

Office of the
BOARD OF SELECTMEN

C O P Y

December 30, 1955
1:13 p.m.

John Smith, Chairman,
Board of Selectmen, Southwick, Mass.

Pleased to inform you Public Works Department advised me today will advertise for bids January 11 for extension of culvert at Point Grove Road between North and Middle Lakes in Southwick. Work will call for Steel Sheeting Thirty Feet in depth and extension of Box Culvert. In addition the Department has prepared a contract with Charles T. Main and Co. for survey of Congamond Lakes. Problems with special attention to the North Lake Dam which went out in recent floods. Warmest Regards.

Christian A. Herter, Governor of the Commonwealth

WATER SUPPLY
SEWERAGE
SEWAGE DISPOSAL
STRUCTURAL ENGINEERING

TIGHE & BOND, Inc.
CONSULTING ENGINEERS
189 HIGH STREET
HOLYOKE, MASSACHUSETTS
GEORGE H. McDONNELL
PHILIP W. SHERIDAN

December 19, 1955

DAMS & POWER INSTALLATIONS
HIGHWAYS & BRIDGES
HOUSING DEVELOPMENT
WASTE DISPOSAL
C-D Southwick

The Hon. the Board of County Commissioners
Hampden County Court House
Springfield, Mass.

Gentlemen:

Enclosed for your information and file purposes please find a copy of a letter sent this date to the Board of Selectmen in Southwick. This letter is the result of a conference held in Southwick on Saturday morning, December 10th, 1955, with the Board of Selectmen and two representatives of the Corps of Engineers of the U. S. Army.

This letter is self-explanatory.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/emm
enc.

PS: Enclosed also is a copy of a letter received from the State of Connecticut regarding the Southwick problem.

WATER SUPPLY
SEWERAGE
SEWAGE DISPOSAL
STRUCTURAL ENGINEERING

TIGHE & BOND, Inc.
CONSULTING ENGINEERS
189 HIGH STREET
HOLYOKE, MASSACHUSETTS
GEORGE H. McDONNELL
PHILIP W. SHERIDAN

DAMS & POWER INSTALLATIONS
HIGHWAYS & BRIDGES
HOUSING DEVELOPMENT
WASTE DISPOSAL

CD-Southwick

Dec. 14, 1955

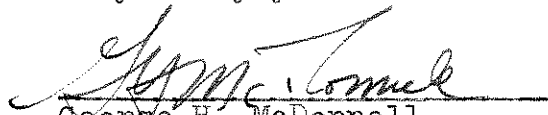
The Hon. the Board of County Commissioners
Hampden County Court House
Springfield, Massachusetts

Gentlemen:

Please find enclosed, for your information and files, a copy of a letter sent to Mr. Wise of the State of Connecticut in answer to his letter of Nov. 29, 1955 that was forwarded to me by your Board for investigation and reply. My enclosed reply is self explanatory.

On Saturday morning, December 17th, I expect to meet representatives of the Corps of Engineers, at the Town Hall in Southwick and I assume this meeting is in connection with the Congamond Lake problem.

Very truly yours


George H. McDonnell
County Hydraulic Engineer

Enc.
GHM:cmb

C O P Y

FLOOD CONTROL AND WATER POLICY COMMISSION

Room 317, State Office
Building

Hartford,

November 29, 1955

County Commissioners for
Southwick, Massachusetts
Hampden County
Springfield, Massachusetts

Gentlemen:

We have received several complaints from town officials from Granby, Connecticut and from property owners in Granby concerning the condition of the dams on the Congamond Lakes. The people in this town are much concerned about the possible damage that might result from another severe flood which might cause the dams on these lakes to fail. This would probably be concerned with the dam on the south lake just above the Connecticut-Massachusetts state line.

The other dam is the dam at the north end of the North Pond. A failure of this dam would cause damage in Massachusetts and would not effect Connecticut property. However, an investigation indicated that this dam should be repaired and adequate spillway capacity should be provided so that a proportionate share of the water should discharge over this dam rather than have the elevations in the ponds built up so that most of the discharge would be made over the south dam.

We are writing to inquire if it is within your jurisdiction to make the necessary repairs or alterations to these structures. We would be glad to meet with you or your representatives to discuss the problem insofar as our interest is concerned in this State.

Very truly yours,

William S. Wise

William S. Wise
Executive Secretary

December 7, 1955

William S. Wise, Executive Secretary,
Flood Control and Water Policy Commission,
Room 317, State Office Building
Hartford, Connecticut.

Dear Mr. Wise:

Replying to your inquiry of November 29th, 1955,
I am forwarding your letter to our County Hydraulic
Engineer, George H. McDonnell.

Very truly yours,

HAMPDEN COUNTY COMMISSIONERS

By _____
Chairman.

December 7, 1955

George H. McDonnell,
County Hydraulic Engineer,
Tighe & Bond, Inc.,
189 High Street,
Holyoke, Mass.

Dear Mr. McDonnell:

I am enclosing a letter from William S. Wise,
Executive Secretary, Flood Control and Water Policy
Commission, Hartford, Connecticut, and ask that you
reply to same.

Very truly yours,

HAMPDEN COUNTY COMMISSIONERS

By _____ Chairman.

Encl.

CD - Southwick

Dec. 14, 1955

Flood Control & Water Policy Comm.
Room 117
State Office Building
Hartford, Connecticut

COPY

Att: Wm. S. Wise, Exec. Secy.

Gentlemen:

Your letter of Nov. 29, 1955 to the County Commissioners of Hampden County, Massachusetts, relative to complaints from Town officials of Granby, Connecticut and property owners in Granby, concerning the condition of dams on the Congamond Lakes, has been given to me for investigation and follow-up.

The officials of the Town of Southwick, as well as the Commissioners of the County of Hampden, have been conferring with the various authorities, both Federal and State having to do with the repair of flood damage and the correction of dangerous situations that have resulted from the August 1955 flood. A recent conference between these officials of the Town and County was held with the heads of the Department of Public Works of the Commonwealth regarding the need for immediate improvements at Congamond Lakes and the construction of a proper dam with water control facilities at North Pond. At this recent conference the State officials indicated that they would co-operate and expedite a solution to the problem.

Within the next few days there is to be a conference between Town officials and representatives of the Corps of Engineers on the Congamond problem.

You can be assured that insofar as the County of Hampden and the Town of Southwick are concerned a continuing effort has been and will be made to have either the Flood Relief authorities of the Commonwealth or the Corps of Engineers begin work as soon as possible on temporary control facilities of a more desirable nature than now exists and to follow through as soon thereafter with a well designed and functional new water impounding structure. Facilities providing ample overflow capacity would be considered in connection with the permanent repair work.

-2-

Flood Control & Water Policy Comm.
Hartford, Conn.

CD-Southwick
Dec. 14, 1955

If you care to discuss this matter with the undersigned, at the site of Congamond Lakes, I would be pleased to meet you at a time and date that would be mutually convenient.

Very truly yours

GEORGE H. MC DONNELL
COUNTY HYDRAULIC ENGINEER

GHM:cmh

C
O
P
Y

State of Connecticut
State Board of Supervision of Dams
Room 317, State Office Bldg
Hartford, Conn.

C
O
P
Y

December 16, 1955.

Mr. George H. McDonnell
County Hydraulic Engineer
Tighe & Bond, Inc.,
189 High Street
Holyoke, Massachusetts

Dear Mr. McDonnell:

Thank you very much for your letter of
Dec. 14, 1955 concerning the additions and repairs to dams
forming Congamond Lakes.

We naturally are pleased to learn of your
assurance that the proper steps will be taken to provide
adequate spillway capacity and other works which would protect
riparian owners in Connecticut during periods of heavy rain-
fall.

We will appreciate being advised and re-
ceive a copy of the plans for making the necessary repairs
and additions to the various structures. If at that time
a conference would seem desirable, we would attempt to ar-
range one which would be mutually convenient.

Very truly yours

STATE BOARD FOR THE SUPERVISION OF DAMS

WSW/p

William S. Wise
William S. Wise, Chairman

C
O
P
Y

C
O
P
Y

C-D Southwick

December 19, 1955

Board of Selectmen
Town Office
Southwick, Mass.

Gentlemen:

COPY

This will confirm our conversation with your Board on Saturday morning, December 10, 1955, regarding proposed temporary measures to be taken at the existing temporary dam on Middle Pond at Congamond Lakes.

At the present time Middle Pond of Congamond Lakes has two outlets for surplus water. One of these outlets is the normal outlet under Berkshire Avenue and the other outlet is through the washout at North Pond. This latter outlet never existed prior to the flood of August 1955, insofar as recent history at Congamond Lakes is concerned. Based upon the heavy rainfall that has occurred during the past months and the existing high ground water table, the outlet through North Pond is advantageous in maintaining a water level in South and Middle Ponds as near to original level as can be maintained under existing conditions.

An examination of the Berkshire Street culvert indicates that the level of Middle Pond cannot be decreased a great deal more by means of this outlet. The invert or bottom of the pipe under Berkshire Street is not a great deal below the level of the lake as now existing. It is my understanding that from your observation during the time of the August flood that this culvert was raised by the force of the flood waters and that the level of this culvert is now higher than existed prior to the August flood.

Since there is an outlet through North Pond now available as a result of the flood, it would seem advisable to provide a suitable temporary dam at Point Grove Road for the purpose of impounding the waters of Middle Lake and at the same time allowing additional overflow from the Lake. The overflow that would be allowed at Point Grove Road must be controlled so that the large gully washed in the vicinity of the old dike at the northerly end of North Pond is not eroded to cause greater danger to those houses now located along the top of this washed out section.

It would seem to the undersigned that if the existing sand-bag dam and timber stop logs in front of the culvert at Point Grove Road could be improved by the driving of steel sheeting in this area to form a tight cut-out wall, and to provide for a spillway notch, the Point Grove Road embankment would be strengthened as a dam and would also allow for the passage of controlled quantities of water through

December 19, 1955

the culvert to North Pond, and thence through the washout. The sheeting could be so arranged that the notch left therein could be opened or closed by placing or removing stop logs. A dam on either side of this sheeting could be constructed for the purpose of providing mass or bulk to the structure. This could be done with any heavy material, even sand bags as they are now being used.

With such a structure in place, it would be possible to continue the use of the culvert under Point Grove Road as a draw-off for the Middle Pond and, in time of storm or should there be heavy run-off from melting snows in the Spring, stop logs placed at this site could be used to control the amount of run-off and thus allow storage in Congamond Lakes so that erosion of the wash-out to the North could not increase the danger to those homes at the edge of the wash-out.

Based upon the fact that the bottom or invert elevation of the Berkshire Street culvert was raised by the flood waters of August and never returned to the proper grade, it would seem advisable for your Board to make immediate application to the Flood Relief Board at Boston for the purpose of obtaining permission to remove and then reset this culvert at a proper elevation. This elevation should be approximately at the original elevation of the structure. Before a grade is determined for this culvert, it would seem advisable to make a study of the brook downstream from the culvert, and to be certain that debris is not clogging the brook so that once the culvert is set at proper elevation, the value gained by lowering the culvert will not be voided by poor flow conditions downstream due to debris in the channel. Also, it would be well to check the grade of downstream culverts to be certain that there is a continuous pitch away from the Berkshire Street outlet.

The South Dike at South Pond is a matter of concern. This dike was damaged somewhat in the August flood and by the October storm. Repairs to the structure should be made to guarantee its safety in case high water should result during the coming Spring. It would seem advisable to include the repair and strengthening of this dike in any requests for immediate assistance from the Flood Relief Board.

It is my understanding that you have been contacted by officials of the Division of Waterways of the Commonwealth, regarding permanent repairs to be made at North Pond. It is also my understanding that this Division is making a complete study of the entire problem at Congamond Lake. In view of this fact, it would seem advisable to notify them of your desire for immediate attention to the Berkshire Street culvert and to the South Dike at South Pond. It is possible that the Division of Waterways would

Board of Selectmen
Southwick, Mass.

-3-

December 19, 1955

rather handle these emergency repairs directly or request that the Corps of Engineers of the U. S. Army handle them. In any event, it would seem best to contact both the Corps of Engineers and the Division of Waterways of the Commonwealth, explaining to them your problem at Berkshire Street and the South Dike, before going to the Flood Relief Board, as previously mentioned. If neither of these organizations feel that they can immediately handle the emergency conditions that require attention, you could then follow through with a request to the Flood Relief Board.

In summary then, it seems that three things must be considered for immediate attention at Congamond Lakes:

- (a) Improvement of the temporary dam at Point Grove Road with provisions for a stop log arrangement for the control of water passing from Middle Pond through the culvert under the road and into North Pond;
- (b) The setting of the existing Berkshire Street culvert to the proper grade;
- (c) The strengthening and repair of the South Dike on South Pond, to prevent a break through at this structure should high water conditions prevail during the coming Spring.

Very truly yours,

GHM/cmm

George H. McDonnell
County Hydraulic Engineer

February 29, 1956

Board of Selectmen,
Southwick, Mass.

Gentlemen:

At a meeting today with Army Engineers on another matter, it came to our attention that temporary repairs to the Lake Congamond culvert at Point Grove Road have not been made.

We suggest that your full Board meet with us on Wednesday, March 7, 1956, at 10:30 o'clock in the forenoon, to discuss this matter.

Very truly yours,

HAMPDEN COUNTY COMMISSIONERS

By _____
Chairman.

WFS/N

February 29, 1956

Board of Selectmen,
Southwick, Mass.

Gentlemen:

At a meeting today with Army Engineers on another matter, it came to our attention that temporary repairs to the Lake Congamond culvert at Point Grove Road have not been made.

We suggest that your full Board meet with us on Wednesday, March 7, 1956, at 10:30 o'clock in the forenoon, to discuss this matter.

Very truly yours,

HAMPDEN COUNTY COMMISSIONERS

By _____
Chairman.

WFS/N

WATER SUPPLY
SEWERAGE
SEWAGE DISPOSAL
STRUCTURAL ENGINEERING

TIGHE & BOND, Inc.
CONSULTING ENGINEERS
189 HIGH STREET
HOLYOKE, MASSACHUSETTS
GEORGE H. McDONNELL
PHILIP W. SHERIDAN

DAMS & POWER INSTALLATIONS
HIGHWAYS & BRIDGES
HOUSING DEVELOPMENT
WASTE DISPOSAL

C.D.-Southwick

March 2, 1956

The Hon. The Board of County Commissioners
Hampden County Court House
Elm Street
Springfield, Massachusetts

Gentlemen:

On Thursday, March 1, 1956 I was in Boston and met with Mr. MacKennon of the Division of Water Ways of the Department of Public Works of the Commonwealth of Massachusetts. At this meeting I discussed the Southwick problem and the status of the work at Congamond Lakes.

Mr. MacKennon assures me that they are active on this project and that a contract for engineering services has been awarded to the Charles T. Main Company of Boston for an engineering study and report upon the problem of properly handling the Congamond Lakes water.

In regard to the temporary dam at the roadway between Middle Pond and North Pond, the Department was of the opinion that the Army Engineers were handling this problem. I discussed with Mr. MacKennon the meeting that we had on Wednesday, Feb. 22, 1956 with the representatives of the Army.

It was the suggestion of Mr. MacKennon that I contact the Selectmen of Southwick and see if they would request the Army Engineers to reconsider the temporary project and to see if a meeting of the minds could not be reached wherein a suitable improvement to the temporary sand bag dam adjacent to the roadway could not be undertaken.

It is expected that the Engineers retained by the Division of Water Ways will make a study of the entire Southwick problem and that the conclusions to be drawn from the study and report will result in permanent construction to repair the damage and return North Pond to a normal condition.

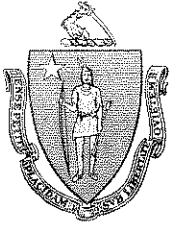
The Hon. The Board of County Commissioners
Page 2
March 2, 1956

If you desire, I will contact the Board of Selectmen of Southwick and find out the status of their Board in regard to their relations with the Army Corps of Engineers and their feeling on a re-negotiation with the Army for a temporary structure at the north end of Middle Pond.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHN/edh



The Commonwealth of Massachusetts

Department of Public Works

Office of the Commissioner

100 Nashua Street, Boston 14

March 7, 1956

SOUTHWICK

Board of Selectmen
Southwick
Massachusetts

Gentlemen:

Commissioner Stapleton called me this morning, again bringing to our attention the condition of flood damages between North Pond and Middle Pond.

This is a location where we had asked a consultant to advise us as to the extent of repairs, and I am now asking that the consultant confer with you. If it is felt necessary that the emergency work referred to by Commissioner Stapleton be done forthwith, I trust that he will advise us or your Board, so that the work can be started at once.

I regret that we have been so long in trying to correct the condition, as I know it is urgent. I will try to see that something is done forthwith, and if it is not, please feel free to contact either Commissioner Stapleton or myself.

Truly yours,

FBD:am

c.c. Commissioner Stapleton

FRED B. DOLE
Associate Commissioner



The Commonwealth of Massachusetts

TOWN OF SOUTHWICK

Office of the
BOARD OF SELECTMEN

March 8, 1956.

Office of the County Commissioners,
37 Elm Street,
Court House Building,
Springfield, Mass.

Dear Sirs:

Enclosed please find a copy of telegram sent to the
Board of Selectmen, by his Exeellency, Christian A. Herter,
Governor of the Commonwealth on December 30, 1955.

Very truly yours,
Board of Selectmen,
Clerk

Shirley J. J. J.

Recd - March 9, 1956

March 14, 1956: Mr. Dole will try to arrange to have Mr. Graft at our meeting next Wednesday at 11 A.M., to discuss Congamond Lakes repairs.

If he is coming, tell Mr. McDonnell so he can plan to be here too.

MEMORANDUM

March 14, 1956 - Southwick

Mr. Stapleton talked with Mr. Mills and Colonel Boluit at the bridge office of the U.S. Army Corps of Engineers by telephone re: above matter. Mr. Mills stated that the Army Corps of Engineers have informed Flood Relief Board in communication with a Mr. Graft of ~~that Board~~ that *the Dist. of Waterways, Dept. of P. Works* the Army would do nothing further unless agreement was reached with the Flood Relief Board as to just what was to be done. Mr. Mills stated that when they first proposed to make the repairs, they met with opposition from property owners who objected that the repairs would result in the raising of water level and the Army would want assurance that people in Southwick would be agreeable to the work to be done.

Agamond Lakes

March 21, 1956

Fred B. Dole, Associate Commissioner,
Department of Public Works,
100 Nashua Street,
Boston 14, Massachusetts.

Dear Mr. Dole:

I wish to re-state in letter form my telephone conversation with you today regarding the condition of the damaged culvert at Point Grove Road between north and middle lakes in Southwick.

The enclosed copy of our Hydraulic Engineer's report of Oct. 20, 1955 will give you a more detailed summary of the condition which we consider of an emergency nature. With the likelihood of an increased spring thaw due to the recent snow storms, we feel it is imperative that some emergency measures be taken immediately.

In a telephone conversation today with Captain Wagner of the U.S. Army Corps of Engineers located at Cambridge, Mass., we were informed that while the Army would entertain a petition for a project, it is not likely that work would be commenced immediately due to their present lack of funds. In the event that a further effort is made to have the Corps of Engineers accept the project, it appears likely that nothing would be done for at least a month.

The County Commissioners are convinced that the quickest and surest procedure would be to request your Department to proceed with the emergency work outlined in a telegram from Governor Christian A. Herter to John Smith, Chairman of the Board of Selectmen of the Town of Southwick, dated December 30, 1955 which indicated that bids would be advertised January 11, 1956 for the necessary repairs. Copy of the Governor's telegram is enclosed.

Will you please advise the undersigned as to the decision of your Department on this request for emergency repairs.

Very truly yours,
HAMPDEN COUNTY COMMISSIONERS

WFS/N
Copy to

Bd of Selectmen, Southwick.

By _____
Chairman.

March 21, 1956

Fred B. Dole, Associate Commissioner,
Department of Public Works,
100 Nashua Street,
Boston 14, Massachusetts.

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Will you please advise the undersigned as to the decision of your Department on this request for emergency repairs.

Very truly yours,
HAMPDEN COUNTY COMMISSIONERS

WFS/N

Copy to
Bd of Selectmen, Southwick.

By _____
Chairman.

March 21, 1956

Fred B. Dole, Associate Commissioner,
Department of Public Works,
100 Nashua Street,
Boston 14, Massachusetts.

Dear Mr. Dole:

I wish to re-state in letter form my telephone conversation with you today regarding the condition of the damaged culvert at Point Grove Road between north and middle lakes in Southwick.

The enclosed copy of our Hydraulic Engineer's report of Oct. 20, 1955 will give you a more detailed summary of the condition which we consider of an emergency nature. With the likelihood of an increased spring thaw due to the recent snow storms, we feel it is imperative that some emergency measures be taken immediately.

In a telephone conversation today with Captain Wagner of the U.S. Army Corps of Engineers located at Cambridge, Mass., we were informed that while the Army would entertain a petition for a project, it is not likely that work would be commenced immediately due to their present lack of funds. In the event that a further effort is made to have the Corps of Engineers accept the project, it appears likely that nothing would be done for at least a month.

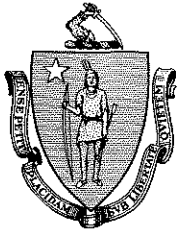
The County Commissioners are convinced that the quickest and surest procedure would be to request your Department to proceed with the emergency work outlined in a telegram from Governor Christian A. Herter to John Smith, Chairman of the Board of Selectmen of the Town of Southwick, dated December 30, 1955 which indicated that bids would be advertised January 11, 1956 for the necessary repairs. Copy of the Governor's telegram is enclosed.

Will you please advise the undersigned as to the decision of your Department on this request for emergency repairs?

Very truly yours,
HAMPDEN COUNTY COMMISSIONERS

WFS/N
Copy to
Bd of Selectmen, Southwick.

By _____
Chairman.



The Commonwealth of Massachusetts

Department of Public Works

Office of the Commissioner

100 Nashua Street, Boston 14

March 22, 1956

SOUTHWICK

William F. Stapleton, Chairman
Hampden County Commissioners
37 Elm Street
Springfield, Massachusetts

Dear Commissioner:

I have received your letter, in regard to the condition of the damaged culvert at Point Grove Road between north and middle lakes in Southwick, which you wrote following our telephone conversation.

I have talked with Robert Pyne, our liaison officer with the Emergency Flood Board, and he advised me that the Board is hesitant to start too much until Main and Company, the consultants, have given us their report. I also talked with Rodolphe Bessette, Director of Waterways, and asked him to check with the consultants. I asked Mr. Bessette to request the consultants to advise us forthwith if they see need for something urgent.

I will try to give you another report, even if it is only a partial one, the first of next week.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "Fred B. Dole".

FRED B. DOLE

Associate Commissioner

FBD:am

c.c. Mr. Pyne
Mr. A. Bessette

2-7-56

March 26, 1956

Senator Ralph Lersche
State Senate
State House
Boston, Mass.

Dear Sir:

This is in regard to the serious condition that exists at the Congamond Lakes in the Town of Southwick. This Water Board is concerned with the serious condition at Congamond because it affects the Town of West Springfield's water supply located at Great Brook near the Southwick-Westfield Town Line.

During the mid-August flood of 1955, a dike located on the northerly end of North Pond of the Congamond Lakes failed. Failure of this dike resulted in the dumping of the contents of North Pond into Great Brook. This tremendous rush of water coursed down through Great Brook, and resulted in the devastation of the Town of West Springfield's well field and pipelines leading from the well field. The waters also caused great property damage along the course of Great Brook and the Westfield River.

The Town of Southwick managed to prevent the loss of Middle Pond by diking between Middle Pond and North Pond. A tremendous struggle was carried out in order to achieve this result. This temporary sandbag and wood plank dike erected after the 1955 flood has not been replaced with a more permanent structure. The failure of this dike will result in the loss of Middle Pond and the further flooding of the West Springfield well field.

The Southwick Selectmen and the Hampden County Commissioners have attempted to obtain aid from the State Department of Public Works and from the Corps of Engineers relative to replacing this temporary dike with a more permanent structure, and their efforts have apparently failed. The presence of this temporary dike is a definite serious threat to the Town of West Springfield's well field, and lack of action on the part of the State Department of Public Works and the Corps of Engineers is deplored by this Board.

In November of 1955, this Board filed a request under the provisions of Chapter 91, General Laws. This request was to have certain work done by the Division of Waterways of the State Department of Public Works on the channel of Great Brook at the Town's well field. The estimated cost of the work was \$10,000.00.

Senator Ralph Lersche

-2-

March 26, 1956

There has been no substantial change in the channel of Great Brook as a result of the floods of August and October of 1955.

There has been a major change in the characteristics of runoff through Great Brook. As a result of the failure of North Pond, it is now possible to discharge excess water from Congamond Lakes through two outlets instead of through one outlet that existed prior to the August flood. These two outlets result in the discharge of water on the Congamond Lakes at a much higher rate than was previously experienced. The brook channel through the Town's well field is not capable of handling this higher rate and the various buildings, bridges, and wells within the well field, have been endangered at a number of occasions during the fall of 1955. Therefore, this Board requests the realignment and the widening of the brook channel so that these higher flows will pass through the well field without any danger of damage. To date, we have not heard anything concerning this condition, submitted in November, and no work has been done.

We respectfully request that you aid our Board, the Selectmen of Southwick, and the Hampden County Commissioners, in their efforts to have this serious problem at the Congamond Lakes solved, so that immense danger will not occur during the spring freshets.

Very truly yours,

BOARD OF WATER COMMISSIONERS

(s) By Walter M. Nagle
Chairman

Copies to:

✓ Board of Selectmen - Southwick, Mass.
✓ Hampden County Commissioners

March 26, 1956

Representative George W. Porter
House of Representatives
State House
Boston, Mass.

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Rep. George W. Porter

-2-

March 26, 1956

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Very truly yours,

BOARD OF WATER COMMISSIONERS

(s) By Walter M. Nagle
Chairman

March 26, 1956

Representative William A. Cowing
House of Representatives
State House
Boston, Mass.

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-2-

March 26, 1956

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Very truly yours,

BOARD OF WATER COMMISSIONERS

(s) By Walter M. Nagle
Chairman

THE COMMONWEALTH OF MASSACHUSETTS

STATE Department of Public Works
SEAL Office of the Commissioner

100 Nashua Street, Boston 14

April 4, 1956

SOUTHWICK

Commissioner William F. Stapleton
Hampden County Commissioners
Court House
Springfield, Massachusetts

Dear Commissioner:

With further reference to the flood damages between North Pond and Middle Pond, I wish to advise you that our consultants have informed us that in their opinion there is nothing of an emergency nature at that location, but you and I both know that the Selectmen and citizens are vitally concerned. I personally wish that the Selectmen, under the Emergency Act, had put in the steel sheeting as an emergency measure between the two Boards right after the Flood, because they had the authority to do so.

The report which I get is to the effect that the culvert appears too small, and is not in a position to carry run-off from a major flood. Very likely this should be replaced and we trust that our consultants, Chas. T. Main, Inc., will present us with an over-all proposal which should be helpful in a major reconstruction project in the area.

I hope this report will be received very shortly, so that we can get something under way. Please be assured that we will try to rush this as fast as possible.

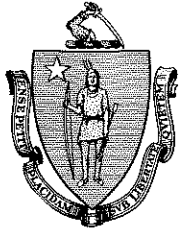
Truly yours,

/s/ Fred B. Dole

FRED B. DOLE
Associate Commissioner

FBD:am

(C O P Y)



The Commonwealth of Massachusetts

Department of Public Works

Office of the Commissioner

100 Nashua Street, Boston 14

April 4, 1956

SOUTHWICK

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Hampden County Commissioners
Court House
Springfield, Massachusetts

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Truly yours,

A handwritten signature in dark ink, appearing to read "Fred B. Dole".

FRED B. DOLE
Associate Commissioner

FBD:am

WATER SUPPLY
SEWERAGE
SEWAGE DISPOSAL
STRUCTURAL ENGINEERING
ELECTRICAL ENGINEERING

TIGHE & BOND, Inc.
CONSULTING ENGINEERS
— 189 HIGH STREET —
HOLYOKE, MASSACHUSETTS
GEORGE H. McDONNELL
PHILIP W. SHERIDAN

DAMS & POWER INSTALLATIONS
HIGHWAYS & BRIDGES
HOUSING DEVELOPMENT
WASTE DISPOSAL

→ NOTE: OUR NEW ADDRESS ←
BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS

C D Southwick
June 28, 1936

The Hon. The Board of County Commissioners
Hampden County Court House
Springfield, Massachusetts

Gentlemen:

Enclosed I am returning to you the copy of the report of
Chas. T. Hain, Inc., on studies for providing a new outlet
for Congamond Lakes.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GMM/r

Sent Certified Mail
No. 847606

June 26, 1957

State Department of Public Works,
100 Nashua Street,
Boston, Massachusetts.

Dear Sirs:

The Hampden County Commissioners enclose herewith copy of letter addressed to the Board of County Commissioners, Hampden County Court House, from George H. McDonnell, County Hydraulic Engineer, Hampden County, and dated June 20, 1957, in regard to repairs at Congamond Lakes in Southwick, Massachusetts.

Kindly send plans and specifications to this office in compliance with General Laws Chapter 253 Section 44.

Very truly yours,

HAMPDEN COUNTY COMMISSIONERS

By _____ Chairman.

WFS/N
encl.

WATER SUPPLY
SEWERAGE
SEWAGE DISPOSAL
STRUCTURAL ENGINEERING
ELECTRICAL ENGINEERING

TIGHE & BOND, INC.
CONSULTING ENGINEERS
BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991

GEORGE H. McDONNELL
PHILIP W. SHERIDAN

DAMS & POWER INSTALLATIONS
HIGHWAYS & BRIDGES
HOUSING DEVELOPMENT
WASTE DISPOSAL

CD-Southwick
June 20, 1957.

The Hon. the Board of County Commissioners
Hampden County Court House
Springfield, Massachusetts

Gentlemen:

Reference is made to the repairs at Congamond Lakes in Southwick, in connection with flood damage of August, 1955.

To date the undersigned has received no plans or specifications of any proposed work at Congamond Lakes.

A routine inspection of the Southwick area was made on Apr. 4, 1957. At that time no work had been started on the permanent repairs for the outlet at Berkshire Street nor had any work been started on the permanent repairs for the North Pond Dike.

On Wednesday, June 19, 1957 I heard that work has been going on in Southwick in connection with permanent repairs. An inspection made of Congamond Lakes on June 20th showed that the permanent repairs have been completed. Information gathered in the field indicates that the work has all been done within the past six weeks or so.

The work of repairing the dike at North Pond includes the placing of a relatively large earth plug in the valley washed thru by the flood. A portion of the surface on the top of the earth plug has been loamed and seeded while the downstream or dry face of the earth plug has also been loamed and seeded. The face of the earth plug toward North Pond remains as a tightly compacted sandy material on the surface.

On each side of the valley approaching the plug riprap paving has been placed for a distance out into North Pond.

At the southerly end of Congamond Lakes, at the location of the southerly dike, a new and larger dike has been constructed. The alignment of this dike is slightly different from the alignment of the old dike. The new dike appears to be of sufficient section and is composed entirely of earth that has been loamed and seeded on the top, as well as the wet and the dry side slopes.

At Berkshire Street a new culvert of concrete construction has been built. This is a twin box culvert and the entrance to the culvert

CD Southwick
June 20, 1957

has been constructed in such a way that stop planks can be set in place to prevent the backing up of Great Brook into Congamond Lakes. These stop planks can also be used for the purpose of varying the elevation of the water surface in Congamond Lakes.

The present arrangement provides for the Berkshire Street outlet as the only outlet from Congamond Lakes.

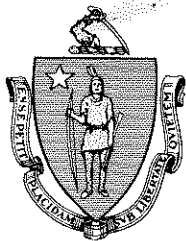
Since the Berkshire Street outlet acts as a dam and since the northerly dike, as well as the southerly dike serve to impound water, and since loss or damage to any or all of these structures could cause the release of water and damage to persons and property downstream, it would seem to the undersigned that plans and specifications of the work should have been filed with your Board for record and approval prior to the beginning of construction work. The work was carried on under the direction of the Division of Waterways of the Dept. of Public Works of the Commonwealth of Massachusetts and I believe that all of the projects were sponsored under the Flood Relief Program.

I am passing on the above information to you for your information and for whatever action you feel desirable.

Respectfully submitted


George H. McDonnell
County Hydraulic Engineer

GHM/cmb



The Commonwealth of Massachusetts

Department of Public Works

Division of Waterways

100 Nashua Street, Boston 14

*Rec'd
July 2, 1957*

July 1, 1957

Hampden County Commissioners
37 Elm Street
Springfield, Massachusetts

Gentlemen: Attention: William F. Stapleton, Chairman

Receipt is acknowledged of your letter of June 26th in regard to the repairs at Congamond Lakes in the town of Southwick.

As requested, find enclosed two sets of plans and two sets of specifications for the above work.

Very truly yours,

Robert B. MacKinnon

ROBERT B. MacKINNON
Chief Waterways Engineer

ENCLOSURES

one set of plans and
specifications handed
to George H. McDonnell,
County Hydraulic Engineer,
on June 17, 1958.

December 16, 1959

Board of Selectmen
Town Office
Southwick, Mass.

Gentlemen:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that the Congamond Lakes North Dike has been inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

"This structure is in fair condition. However, erosion control is needed to prevent further damage by surface wash. Small gulleys are being formed on the pond side face. The road built across the valley on the top of the north end of the dike could be the cause of an erosion problem by channeling surface wash onto the dike. Surface drainage facilities should be properly designed and built and then maintained."

Any further information concerning this matter which you may desire, will be furnished by this office upon request.

Very truly yours

BOARD OF COUNTY COMMISSIONERS



The Commonwealth of Massachusetts

TOWN OF SOUTHWICK

Office of the
BOARD OF SELECTMEN

December 24, 1959.

Office of the County Commissioners
37 Elm Street
Springfield, Mass.

Gentlemen:

Acknowledging your letter of December 16, 1959, relative to the inspection of Congamond Lake, North Dike, our Highway Superintendent Mr. Porter Stevens intends to construct a series of thank-you-mams of pole and asphalt concrete to turn the surface water on the Roadway.

He also intends to lay logs on the southerly shoulder of the road to prevent cars driving over the bank to reach cottages in that vicinity. These logs will be banked to form a berm. If this does not suffice, he will build a hardened gutter.

Rest assured these facilities will be properly maintained.

Very truly yours,

Albert H. Hollister
Chairman

James W. Phelps
Alfred L. Cagle
Board of Selectmen

Copy of this letter mailed to George H. McDonnell, County Hydraulic Engineer, on December 28, 1959.

POST OFFICE DEPARTMENT
OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID
FORFEITURE OF POSTAGE, \$300
(GPO)



RETURN TO

REGISTERED NO.

NAME OF SENDER

CERTIFIED NO.

STREET AND NO. OR P. O. BOX

INSURED NO.

POST OFFICE

STATE

County Commissioners
Court House, 37 Elm St.,
Springfield 3,
Mass.

POD Form 3811
July 1955

DELIVERING
EMPLOYEE

☐

Deliver ONLY to addressee. (Does not apply to Certified mail.)

☐

Show address where delivered.

Received from the Postmaster the Registered, Certified, or Insured Article, the number of which appears on the face of this return receipt

1.

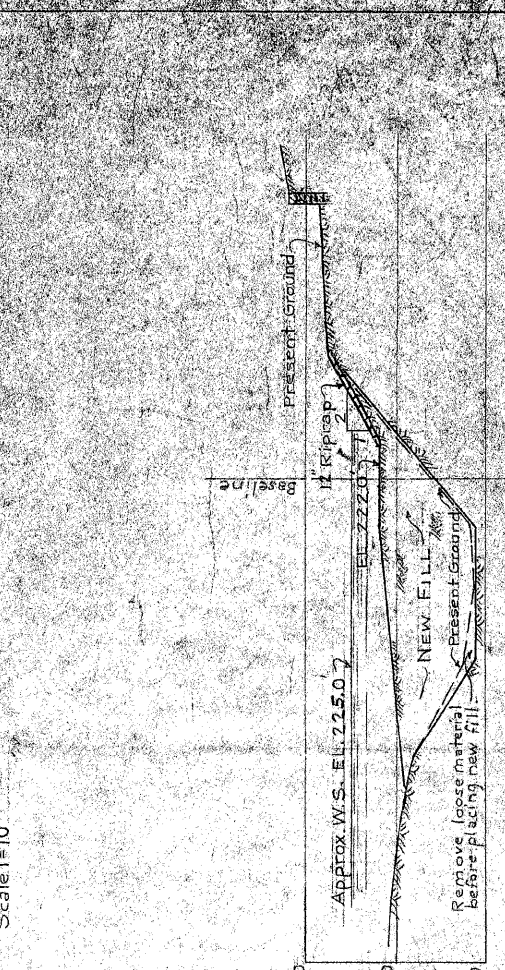
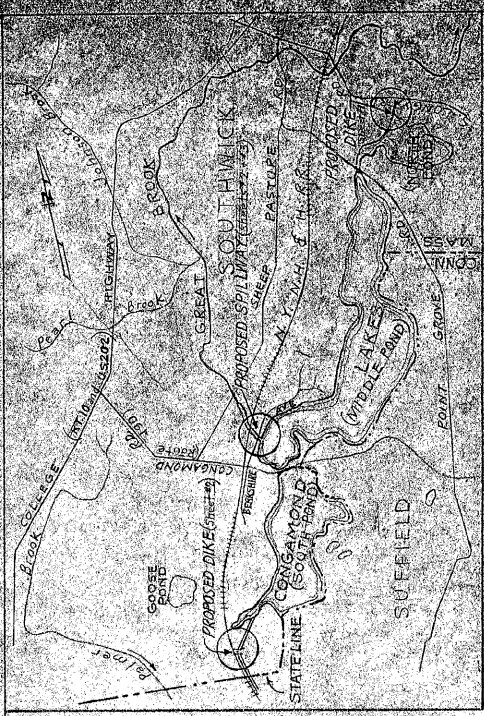
Gateway Public Works
(Signature or name of addressee)

2.

M. J. O'Connell
(Signature of addressee's agent—Agent should enter addressee's name on line ONE above)

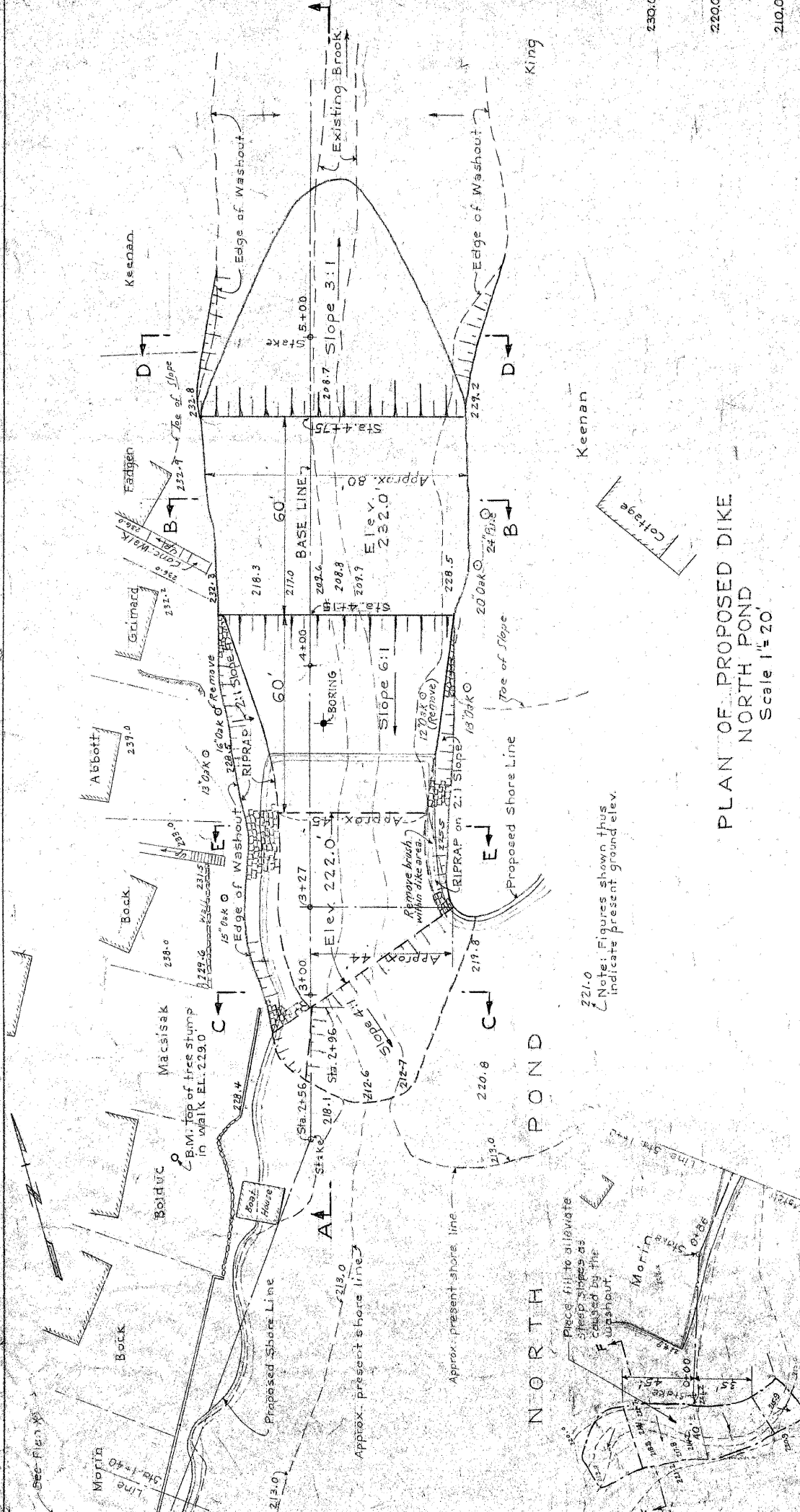
Date of Delivery

6/21, 19 62



SECTION CC
Scale 1"=10'

B.M. Top of tree stump in walk opposite boat house EL. 229.0 Elevations refer to Mean Sea Level.



PLAN OF PROPOSED DIKE NORTH POND
Scale 1"=20'



SECTION AA
Scale 1"=20'

Remove loose material before placing new fill.

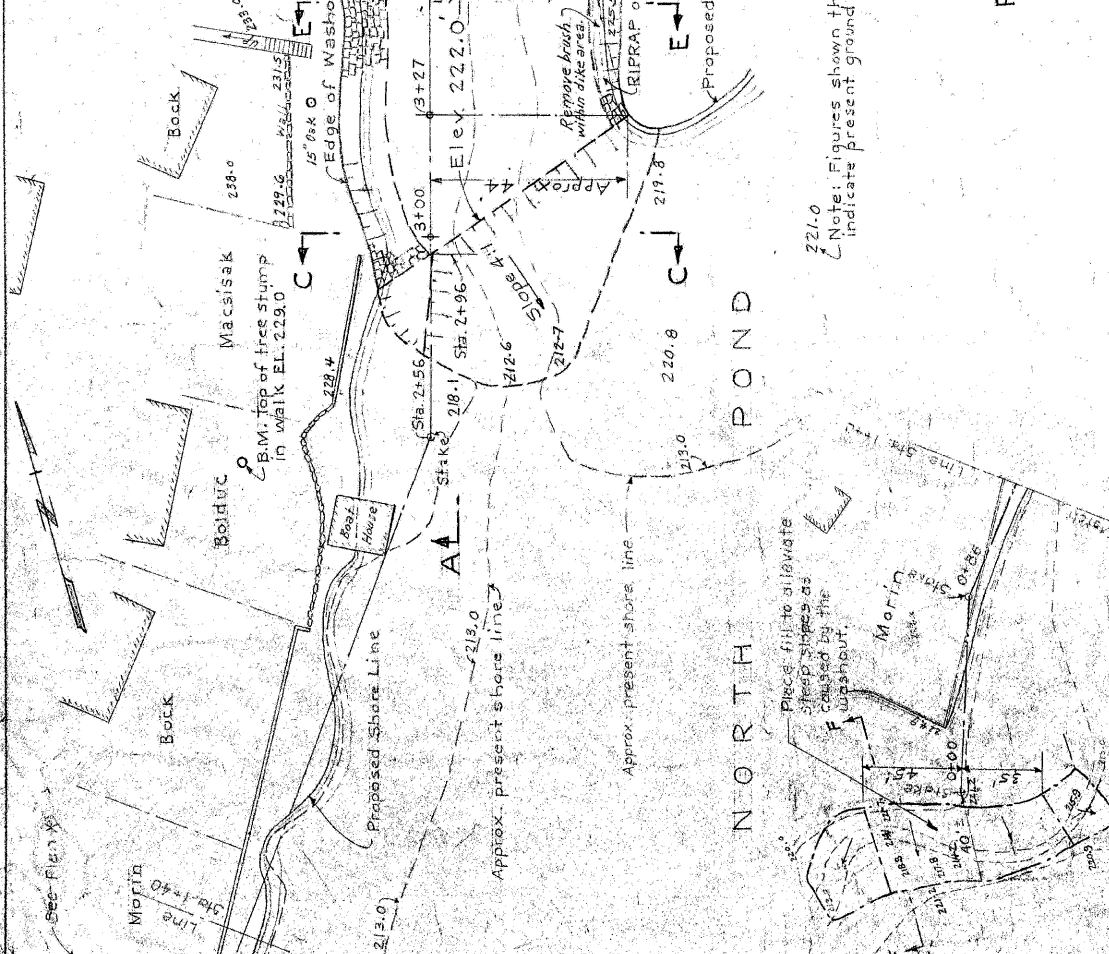


SECTION BB
Scale 1"=20'

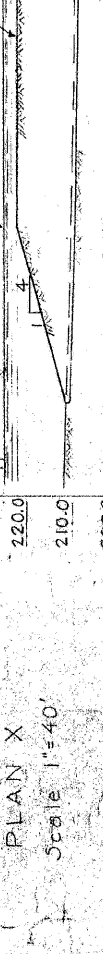
Remove loose material before placing new fill.



SECTION CC
Scale 1"=20'



PLAN OF PROPOSED DIKE NORTH POND
Scale 1"=20'



SECTION AA
Scale 1"=20'

Remove loose material before placing new fill.



SECTION BB
Scale 1"=20'

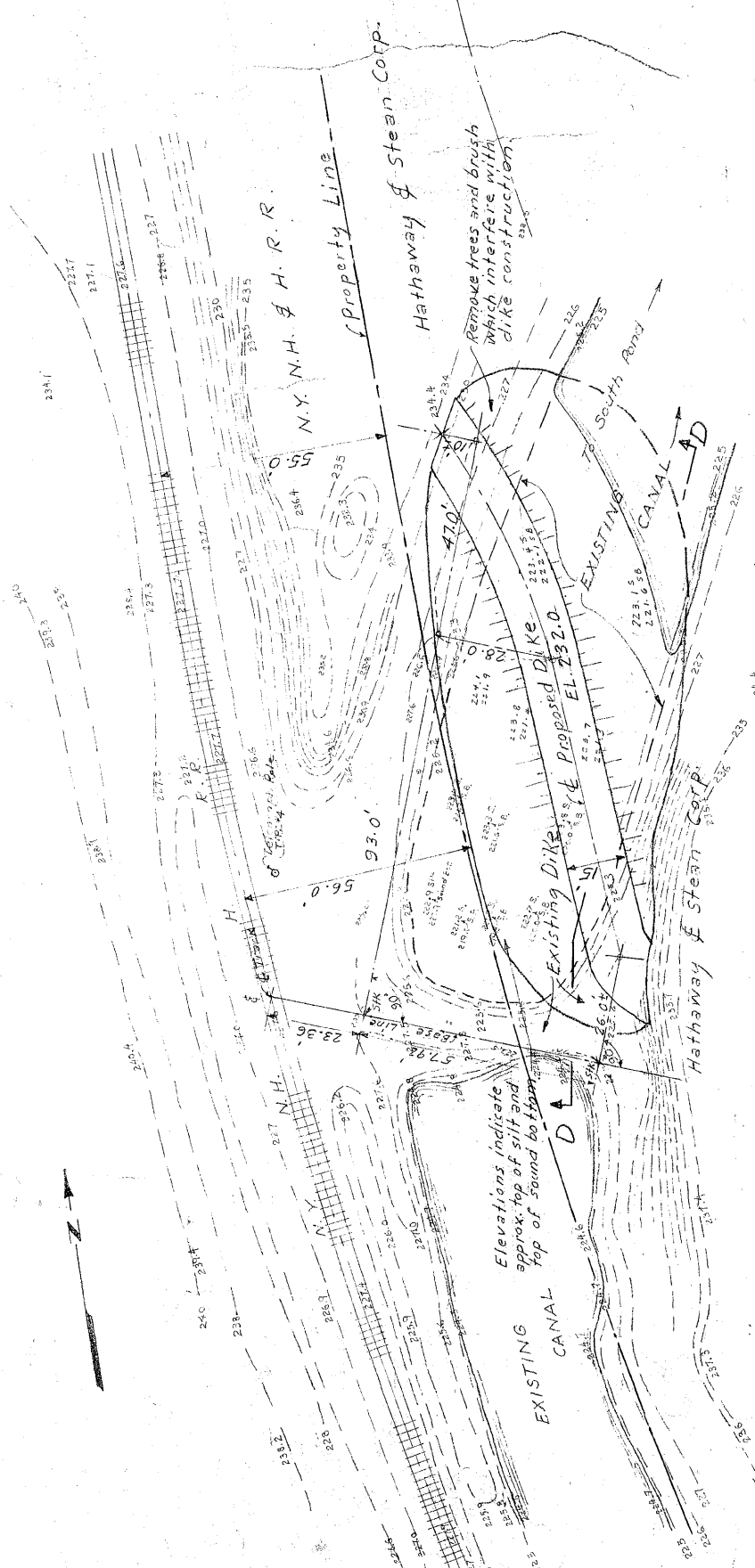
Remove loose material before placing new fill.



SECTION CC
Scale 1"=20'

PROPOSED REPAIR OF CLOSURE DIKES
AND CONSTRUCTION OF NEW SPILLWAY
CONGAMOND LAKES
SOUTHWICK
PLAN & SECTIONS - SH. I
DEPARTMENT OF PUBLIC WORKS OF MASSACHUSETTS
DIVISION OF WATERWAYS
SEPTEMBER 1956
SCALE AS SHOWN
CHAS. T. MAIN, INC.
BOSTON, MASSACHUSETTS
CHARLOTTE, NORTH CAROLINA
District Waterways Engineer

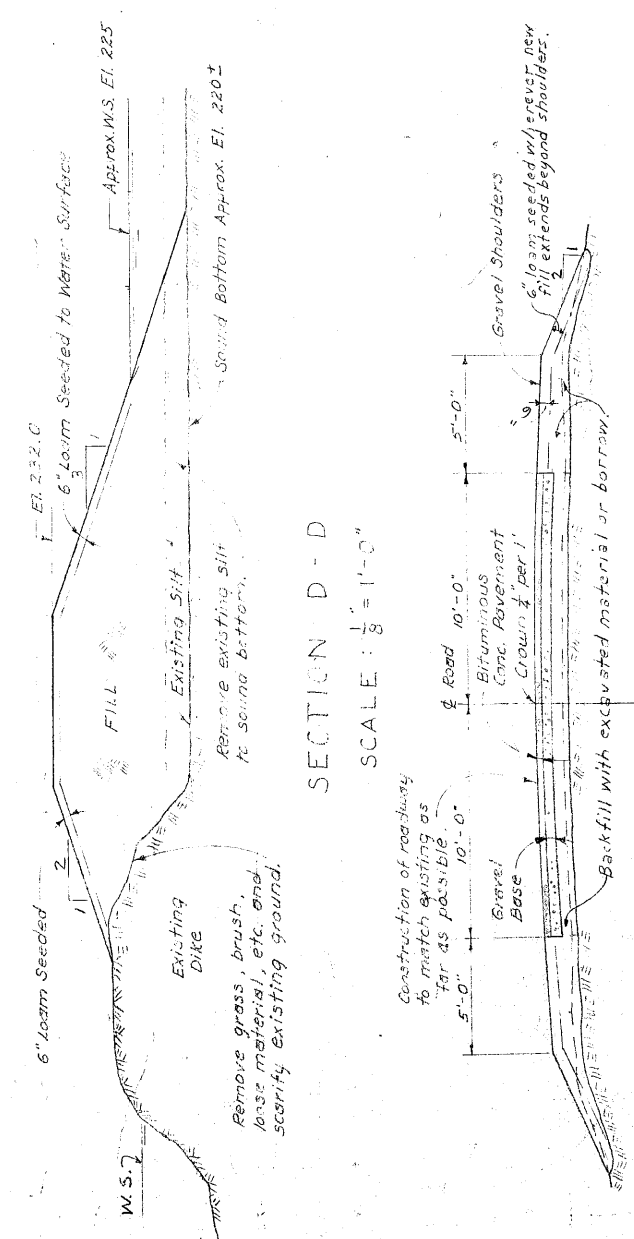




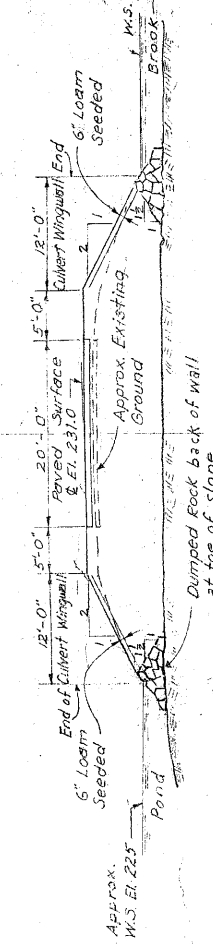
PROPOSED DIKE - SOUTH POND
PLAN
SCALE: 1" = 20'

3. M.N. in telegraph. V. Marked TR.4. EL. 230.92

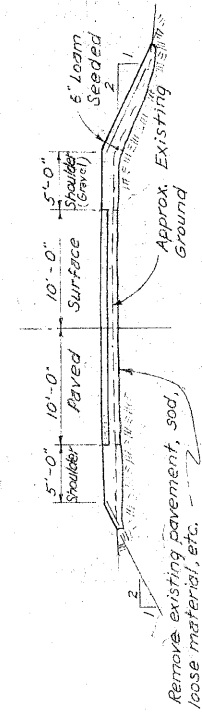
NOTE:
Existing ground elevations shown
thus: 230.5



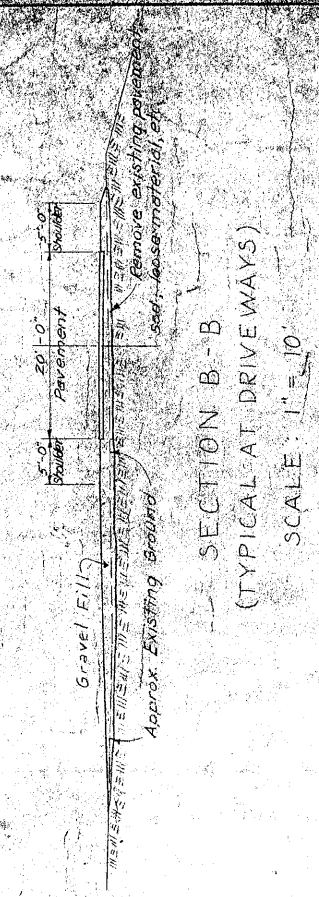
ROADWAY SURFACING DETAIL
SCALE: 1/4" = 1'-0"



SECTION A-A
(SECTION AT CULVERT BACKFILL)
SCALE: 1" = 10'



SECTION C-C
SCALE: 1/8" = 1'-0"



SECTION B-B
(TYPICAL AT DRIVEWAYS)
SCALE: 1" = 10'

Elevations refer to mean sea level.

PROPOSED REPAIR OF CLOSURE DIKES AND CONSTRUCTION OF NEW SPILLWAY CONGAMOND LAKES SOUTHWICK

PLAN 8 SECTIONS - SH. 2
DIVISION OF PUBLIC WORKS OF MASSACHUSETTS

SEPTEMBER 1956
SCALE AS SHOWN

BOSTON, MASSACHUSETTS
CHAS. T. MAIN, INC.
NORTH CAROLINA
Charlotte
District Waterways Engineer

CONTRACT NO. 1659

ACC. 03584-B

F. M. GUNBY
W. P. UHL
W. M. HALL
R. W. LOGAN
M. JACOBS
G. R. RICH
R. T. COLBURN

CHAS. T. MAIN, INC.
80 FEDERAL STREET
BOSTON 10, MASS.

INDUSTRIAL PLANTS
TEXTILE MILLS
PAPER MILLS
PRINTING PLANTS
STEAM POWER
WATER POWER
FOUNDATIONS
VALUATIONS

CABLE ADDRESS
CHASMAIN, BOSTON

317 SOUTH TRYON STREET
CHARLOTTE, N. C.

May 8, 1956

167-73

Subject: Congamond Lakes
Study of Outlet

Commonwealth of Massachusetts
Department of Public Works
Division of Waterways
100 Nashua Street
Boston, Massachusetts

Gentlemen:

We submit herewith a report on studies we have made relative to providing a new outlet for Congamond Lakes in Southwick, Mass. These studies were made pursuant to Contract No. 1566, dated Jan. 9, 1956, and received by us on March 6, 1956.

Briefly, we conclude that the lakes should be restored by construction of an earth dike plug in the north outlet, that the dike at the south end should be raised and strengthened, that the present outlet into Great Brook should be replaced with a larger and more substantial structure, and that the roadway forming the restraining dike at the Great Brook outlet should be raised. Our proposals are described as Alternative No. 1 of the report and are shown on Plate VI. The estimated cost is \$51,500.

Regarding the channel of Great Brook, we conclude that no major program of improvement is warranted at this time.

We believe that the report covers all points about which there might be any question. Please do not hesitate to call on us, however, should you feel that elaboration of any part is necessary.

Yours very truly,

CHAS. T. MAIN, INC.

By *C. C. Cullum*
C. C. Cullum

CCC:j

REPORT ON
STUDIES MADE RELATIVE TO PROVIDING
A NEW OUTLET FOR CONGAMOND LAKES
SOUTHWICK, MASS.

<u>INDEX</u>	<u>Page No.</u>
1. GENERAL	1
2. SCOPE	1 & 2
3. PROPOSED WORKS	2 & 3
(a) Great Brook Channel	2
(b) Outlet to Lakes	2
(1) Alternative No. 1	3
(2) Alternative No. 2	3
4. CONCLUSIONS & RECOMMENDATIONS	3
(a) Great Brook Channel	4
(b) Lake Outlet	4
(c) Lake Levels	4
5. DRAINAGE AREAS	4
6. RAINFALL	5
(a) Aug. 1955 Storm	5
(b) Design Storm	6
7. STORM RUN-OFF	6
(a) Inflow to Lakes	6
(b) Inflow to Great Brook	7
8. RISE IN LAKE LEVELS	8
9. COSTS	8
(a) Great Brook Channel	8
(b) Lake Outlet, Alt. No. 1	9
(c) Lake Outlet, Alt. No. 2	9

Plate I	- Rainfall Data.
Plate II	- Profile of Great Brook
Plate III	- Hydrograph of Inflow to Lakes for Design Storm
Plate IV	- Reservoir Volume
Plate V	- Inflow, Outflow, Lake Elevations for Design Storm
Plate VI	- Layout of Lake Outlet Structures, Alternative No. 1
Plate VII	- Layout of Lake Outlet Structures, Alternative No. 2

REPORT ON

STUDIES MADE RELATIVE TO PROVIDING A NEW OUTLET FOR CONGAMOND LAKES SOUTHWICK, MASS.

1. GENERAL. - Congamond Lakes, in the town of Southwick, Mass., comprise three interconnected ponds having a total surface area of about 464 acres. The lakes lie approximately in a north and south direction, about three miles long and up to one-third of a mile wide. The eastern shore forms, generally, the State boundary of the Massachusetts panhandle into Connecticut. The lakes were at one time part of the Hampshire & Hamden Canal, with entrances at the extreme north and south ends. Upon abandonment of the canal, these outlets were plugged with earth dikes.

The natural outlet of the lakes, called Great Brook, emerges westward from the southern end of the middle pond, flows generally northward, circles around the north end of the lakes and discharges about 5 miles northeastward into the Westfield River. The channel is restricted in several places by culverts. The present outlet from the lakes is a severe restriction, consisting only of a 36" x 58" corrugated iron culvert. A considerable drainage area feeds the brook from the westward and it is this area that contributes to flooding of the channel rather than any outflow from the lakes.

During the hurricane storm of August 18-19, 1955, there were two separate occurrences, both related to the storm but having little relation to each other, which caused property damage in the area.

First, during the height of the storm, the channel of Great Brook became gorged with water and flooded to a varying degree some six establishments - 4 private dwellings (one destroyed), a convalescent home and a filling station - along its banks and a tributary brook. The lake thus formed finally broke through the railroad fill which formed the dam and was relieved. There was some damage to highway culverts and fills where these were overtopped.

Second, the Lakes, as is usual, continued to rise after the rainfall had ceased. Some six hours after the run-off producing rain had stopped, water began overtopping the plug in the north outlet. Efforts to stop this were not successful and about nine hours later the entire north pond went out, cutting an immense gorge out to the channel of Great Brook. The highway culvert connecting Middle Pond and North Pond was sealed off so that only North Pond was drained.

2. SCOPE. - This report is principally concerned with measures for sealing off the lakes and providing means so that the outflow can be carried away in a safe and dependable manner. As a coordinate problem, a study was made of the inflows to Great Brook other than from

the Lakes, and of the carrying capacity of Great Brook Channel, both up to a point opposite the north end of the lakes. No study has been given to the channel between this latter point and the confluence with Westfield River.

The storm of August 18-19, 1955 so greatly exceeded all previous records for the entire eastern part of the country that design of hydraulic structures in general for worse conditions is not considered either reasonable or economical. The storm is, therefore, taken as a criterion for the study. Whenever conditions during the August 1955 storm are described, it can be taken that they apply equally to the "design storm".

3. PROPOSED WORKS

(a) Great Brook Channel. - The following conditions obtain in Great Brook Channel during a flood comparable to that of Aug. 19, 1955. They are illustrated on a profile of the Channel, Plate II.

1. Flooding of the Channel is caused by insufficient culvert capacity.

2. The culvert under the N.Y., N.H., & H. Railroad tracks is the controlling restriction. This culvert is reported to have been partially obstructed by debris during the flood of August 1955 but the effect of the obstruction was apparently minor. The high railroad embankment effectively dammed the stream for a time and backed water over Point Grove Road to such a depth that the roadway culvert and embankment were a very minor obstruction.

3. The Point Grove Road culvert becomes a controlling restriction, if the railroad restriction is remedied. A storm equivalent to that of August 1955 would put water running about 2.5 feet deep over the roadway surface.

4. The channel of Great Brook, although overgrown, is sufficiently wide to cause no appreciable obstruction to flows level with Point Grove Road. Flows below this level should cause no damage.

5. During times of great storms, the conditions in Great Brook should be aggravated as little as possible by outflow from the Lakes. This has unquestionably been the past condition. The outlet has always been restricted to such an extent that the main part of the lake inflow has been stored and drawn off gradually.

Additional culvert area would be the only remedy for the above described conditions. There is ample channel room for a second culvert so that the present culverts could remain in place. The areas required are shown on Plate II.

(b) Outlet to Lakes. - The failure at North Pond, in the early morning of August 20, 1955 occurred after all of the surface run-off was in the lakes. The groundwater flow was still coming in strongly, however, so that the lakes were still rising, but the additional rise would have been insignificant. It is thus evident that very little additional free-board on the plug in the north end would have saved the disaster.

North Pond can be restored and an outlet constructed to carry off the floodwaters safely in one of two manners. Each has certain advantages and disadvantages.

(1) Alternative No. 1 (Plate VI) Reconstruct a plug in the north outlet. Reconstruct the present outlet to Great Brook and raise the roadway at the outlet (Berkshire Ave.) to form a safe dam. Raise and strengthen the dike at the south end.

This would restore the lakes to their previous condition, except that the restraining dikes would be higher and stronger. The outlet structure would be more substantial and considerably larger than the present corrugated iron culvert but it would still restrict the outflow to a nominal amount. The lakes would thus continue to have their historic function as a flood storage reservoir.

The disadvantage of this scheme is in the length of time required for the lakes to draw down after a major rise. Plate V illustrates the condition for a storm similar to that of August 1955. For a major rise in the early fall, the lakes would very likely be higher than normal until the summer of the next year.

(2) Alternative No. 2 (Plate VII) Construct a spillway in the North outlet with an improved channel to Great Brook. This would require an enlarged culvert under Longyard Road. It would also require an enlarged culvert under Point Grove Road in order to draw the flow from Middle and South Ponds into North Pond. The new outlet to Great Brook and the strengthened dike at the south end would be constructed the same as for Alternative No. 1.

The spillway at the north end would be set at normal lake level so that the ordinary flows would continue to go through Great Brook and only the overflow due to a rise in the Lakes would go out the north outlet.

The advantage of this scheme is in the speed with which the lakes drop to normal level after a rise. There would also be less rise in the lakes. Both of these would diminish the difficulties with flooded cellars and other similar nuisances around the shore of the lake. Plate V illustrates the pattern of rise and fall for a storm similar to that of August 1955. It will be noted that the spillway would decrease the maximum rise by 0.8 feet for such a storm.

The disadvantage of the scheme is in its cost. Also, it would add about 1,000 c.f.s. to the streams below approximately at the time of maximum flood.

4. CONCLUSIONS AND RECOMMENDATIONS. - Based on the study, the following conclusions and recommendations are made:

(a) Great Brook Channel. New culverts to alleviate property damage due to flooding of Great Brook Channel, as shown on Plate II, are estimated to cost about \$119,000. The amount of property damage, as we have been informed of it, will not justify this expenditure. Nor would a materially lesser expenditure be of any material benefit. It is concluded, therefore, that no major program of improvement is warranted at this time.

The channel has not been investigated in detail to ascertain whether or not there are minor nuisances which could be abated by minor improvement.

(b) Lake Outlet. It is recommended that the Lakes be restored by construction of a plug in the north outlet; that the present outlet to Great Brook be improved and strengthened; and, that the dike at the south end be raised and strengthened; all substantially as outlined under Alternative No. 1 (Plate VI). It is estimated that this would cost about \$51,500 as compared with \$171,300 for an auxiliary spillway and its necessary appurtenances (Alternate No. 2, Plate VII).

Sufficient benefits are not apparent to warrant the extra costs for the more expensive scheme. Nor is it certain that added damages downstream would not offset any benefits the spillway scheme might offer the lake property.

(c) Lake Levels. At present the lakes are approximately at Elevation 225.3, U.S.G.S. Datum. The levels were reported to have been raised one to two feet during recent years when a bridge outlet to Great Brook was replaced by the present culvert outlet. There appears to be some dissatisfaction with the present levels among the adjacent property owners.

No reason is known for establishment of the lake level, except to the satisfaction of the property owners so that it is recommended that the local officials be allowed to decide the point. The question would be "whether the property owners prefer the lake levels as they now are, or whether they would like to have them lowered, say one foot, and thus have them approximately the same amount lower in case of flood.

Theoretically, the dike levels which have been shown on the drawings could be lowered if the lake levels are lowered. Such is not recommended, however, on account of the uncertainty of future changes.

5. DRAINAGE AREAS. - The following is a breakdown of the drainage area up to the N.Y., N.H. & H. Railroad Crossing of Great Brook just south of Southwick Station:

	<u>Sq. Mi.</u>	<u>Acres</u>
<u>WATER SURFACE</u>		
North Pond	.073	46.5
Middle Pond	.431	276.0
South Pond	.221	141.5

Total Water Surface (El.225)	.725	464
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<u>LAND SURFACE (Directly into Lakes)</u>		
West Side of Lake	.862	552
East Side of Lake	2.618	1,675

Total Land Surface	3.480	2,227
--------------------	-------	-------

TOTAL DRAINAGE AREA INTO LAKES	4.205	2,691
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<u>DOWNSTREAM FROM LAKE OUTLET</u>		
Great Brook Proper	1.850	1,184
Johnson, Tuttle & Pearl Brooks	5.630	3,603
Brook thru Southwick Center	.786	504

TOTAL DOWNSTREAM FROM LAKE OUTLET	8.266	5,291
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TOTAL DRAINAGE AREA UP TO R.R.CROSSING	12.471	7,982
--	--------	-------

The reservoir area at Elevation 230 is scaled from the U.S.G.S. Map as 640 acres. The Reservoir Volume Curve, Plate IV, was thus developed, assuming straight line areal variation between lake surface level and Elev. 230.

6. RAINFALL

(a) August 1955 Storm. - The site is very close to the point of maximum rainfall for the storm of August 18-19, 1955. Plate I shows cumulative rainfall graphs for nearby recording gages; Springfield, Mass., Norfolk, Conn., and Knightsville Dam, Mass. The following are the amounts recorded at nearby non-recording station, readings being taken in all cases at 8 A.M. on the day noted:

	<u>18</u>	<u>19</u>	<u>Total</u>
Westfield Sanatorium, Mass.	1.25"	18.15"	19.40"
Granville, Mass. (5 mi. northwest)	1.57"	16.81"	18.38"
Blandford, Mass. (14 mi. northwest)	2.00"	15.60"	17.60"
Torrington, Conn. (12 mi. south)	3.77"	9.52"	13.29"

An isohyetal map of the storm, prepared by the U. S. Weather Bureau indicates that about 18.0" fell in the vicinity of Congamond Lakes.

(b) Design Storm. The August 1955 storm greatly exceeded all records for the region. Meteorological conditions, even for a hurricane storm, were exceptional. A design storm with a total fall of 18.0" has therefore been taken, with distribution paralleling that of Aug. 18-19, 1955. Plate I shows a graph of the assumed distribution.

Assumption of a greater rainfall is not considered warranted for basic design. Freeboard will be allowed on all dikes and other similar structures, however, in order to give a reasonable factor of safety over and above the basic design.

7. STORM RUN-OFF

(a) Inflow to Lakes. Inflow to the lakes may be considered to consist of groundwater inflow, direct fall on the lakes, surface run-off, and, for the August 1955 storm, inflow at the Great Brook outlet and over the south end dike.

The Congamond Lakes have only one small brook as a feeder. It thus appears that they are largely fed by subsurface springs. Under this condition, an exceptionally large percentage of a rainfall would reach the lakes as groundwater inflow and, due to the narrowness of the drainage basin, a large percentage of the groundwater would be released rapidly. This condition is confirmed by records for the August 1955 storm.

On account of the large proportion of water surface, the direct rainfall on the lakes is a significant factor. The equivalent rate of inflow is a direct function of the rate of fall and reaches the lakes, of course, without any lag in time.

Surface run-off from the design storm has been estimated by theoretical formulae, balancing the results as nearly as possible with the Aug. 1955 storm. For this, the only significant records are:

Maximum Elevation of Lakes 229.3

Time of failure (presumably at max. elev.) 1 A.M., Aug. 20, 1955.

During the Aug. 1955 storm, flow of Great Brook is reported to have been reversed for a time. Water in the channel reached a height about one foot greater than the highway at the outlet (Berkshire Ave.) and flowed over the highway into the lakes. This is confirmed by the elevation of a flood mark taken near Point Grove Road (see Plate II). The condition, however, could have occurred only at the peak of the flood, and could not have been of long duration.

A similar occurrence is reported at the south end dike. Here there is no record of the exact height or duration of the inflow. The lakes finally reached a height greater than the dike and there is evidence of outflow so that the duration of inflow must not have been great.

Neither of these latter two inflows was a major factor in the rise in the lakes.

A hydrograph of the design storm, following the above considerations, is shown on Plate III. The more or less arbitrary assumption was made that

groundwater inflow would be 200 c.f.s., or at the rate of 0.09"/hr., at the time the surface run-off is complete. At that time the total retention would be 8.6 inches, or 0.33" per hour of significant rainfall during the storm. The ground water is assumed to taper off in rate to 10 c.f.s. one week later. At that time the total retention would be 4.7 inches, or 0.15" per hour of significant rainfall.

From the above, assuming the Aug. 1955 storm to be similar, the following balance of inflow and outflow volume is made, up to the time of failure of North Pond.

TOTAL INFLOW - BY RAINFALL

Direct fall on Lake	7,870	hr.	sec.	ft.
Surface Run-off (7.60")	17,070	"	"	"
Groundwater Inflow (1.80")	4,060	"	"	"
Overflow from Great Brook	3,300	"	"	"
Overflow from South Dike	900	"	"	"
Total	33,200	hr.	sec.	ft.

TOTAL INFLOW - BY RISE IN LAKES & OUTFLOW

Storage in Lakes	28,000	hr.	sec.	ft.
Outflow, Great Brook before reversal	1,450	"	"	"
Outflow, Great Brook after reversal	1,550	"	"	"
Outflow, over South Dike	1,200	"	"	"
Outflow, Out North Channel	1,000	"	"	"
Total	33,200	hr.	sec.	ft.

The above amount of surface run-off gives an infiltration index of 0.50"/hr. which is not unreasonable. The distribution of this run-off was based on unit hydrograph of the several distinct areas.

(b) Inflow to Great Brook. Inflow to Great Brook up to the railroad crossing near Southwick Station can be broken down into the following components:

- Outflow from the Lakes
- Inflow from Johnson Brook (incl. Tuttle & Pearl Brooks)
- Inflow from brook through Southwick Center
- Inflow from remaining drainage area (Great Brook Proper)

It is desirable to remedy the condition allowing reversal of the flow of Great Brook into the lakes (except for what might back through the outlet culvert). On the other hand, it can be assumed that the lakes would be contributing a negligible amount to Great Brook flow during the peak of a major storm.

There are no available data from which the inflow into Great Brook during the Aug. 1955 storm can be computed with accuracy. The U. S. Geological Survey gives a peak flow of 3,610 c.f.s. from 19.3 sq. mi., the point of measurement evidently being downstream from the area under consideration. Just how this peak was affected by storage above the obstructions, or by failure of the obstructions, cannot now be evaluated.

Theoretical inflows were computed from unit hydrographs based on Snyder's formulae. From these, the following values are obtained, depending on differing assumptions as to infiltration rates. (Flows from the smaller areas are at the time of peak of the larger area).

	Infiltration Rate		
	0.15"/hr.	0.20"/hr.	0.30"/hr.
Johnson Brook	4,000 cfs	3,850 cfs	3,500
Great Brook Proper	1,280 "	1,200 "	1,100
Brook through Southwick Center	600 "	550 "	520
Total	5,880 cfs	5,600 cfs	5,120 cfs

The Kinnison-Colby "rare" flood would have a computed peak of 2,380 cfs.

From the above, an outflow of 4,000 cfs is considered safe and reasonable for design of a culvert at the railroad crossing, taking into account the reduction in peak due to storage in Great Brook Channel.

8. RISE IN LAKE LEVELS. - A 50 foot length of spillway at the north end is about the largest that can be constructed reasonably. An 8-foot long spillway at the Great Brook outlet is about the optimum that will serve the dual purpose of limiting outflow during storm peaks and lowering the lakes to normal within an allowable time after a major rise. The design storm (Plate III) was therefore routed over these spillways with results as shown on Plate V. This plate shows the cumulative volume of inflow from the design storm and the cumulative outflow for the two spillway designs, with corresponding Lake elevations. It will be noted that the lakes would rise to Elev. 229.1, or about 0.2 ft. below the level of Aug. 19, 1955, for the outlet at Great Brook only. With the spillway at the north end, the lakes would rise to Elev. 228.3, a decrease of 0.8 ft. over the other design.

The Great Brook outlet would discharge about 210 c.f.s. at maximum level of the lakes but only about 120 c.f.s. at the peak of the storm. The 50-foot spillway would discharge about 1,050 c.f.s. at maximum level of the lakes.

9. COSTS

(a). Great Brook Channel. Detail cost estimates for culverts at the railroad crossing and at Point Grove Road as shown on Plate II are

summarized in the following:

Railroad Culvert	\$86,400
Point Grove Road Culvert	<u>32,600</u>
Total	\$119,000

(b) Lake Outlet, Alternative No. 1 - Table A shows detail cost estimates for the dikes and protective works proposed under Alternative No. 1 (Plate VI). A summary is:

Dike at North End	\$ 24,900
Great Brook Outlet	21,600
Dike at South End	<u>5,000</u>
Total	\$ 51,500

(c) Lake Outlet, Alternative No. 2. Detail cost estimates for the various component parts required by the north end spillway scheme, Alternative No. 2, Plate VII, are summarized below:

Great Brook Outlet	\$21,600
Dike at South End	5,000
Spillway Dam at North End	67,200
Spillway Channel at North End	24,700
Culvert, Longyard Road	16,000
Culvert, Middle to North Pond	<u>36,800</u>
Total	\$171,300

TABLE A

CONGAMOND LAKES
ALTERNATIVE NO. 1
ESTIMATE OF COST

<u>ITEM</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Amount</u>
I. <u>DIKE AT NORTH END</u>					
1.	Temporary Closure at Point Grove Rd.	L.S.	-	-	\$ 1,500
2.	Diversion North Pond Inflow	L.S.	-	-	800
3.	Excavation	400	cu.yds.	1.50	600
4.	Compacted Fill	5,670	" "	2.75	15,600
5.	Gravel Filter	50	" "	6.00	300
6.	Riprap	100	" "	9.00	900
					<u>\$19,700</u>
	Engineering & Administration	10	%		1,970
					<u>\$21,670</u>
	Contingencies & Unforeseen	15	%		3,230
					<u>3,230</u>
	Total				<u>\$24,900</u>

II. <u>GREAT BROOK OUTLET</u>					
1.	Care and handling of Water	L.S.	-	-	\$ 500
2.	Excavation	670	cu.yds.	1.25	840
3.	Backfill & Roadway Fill	2,450	" "	2.25	5,500
4.	Concrete	48	" "	35.00	1,680
5.	Forms	2,200	sq.ft.	1.25	2,750
6.	Reinforcing Steel	5,300	lbs.	0.13	690
7.	Roadway Surfacing	1,200	sq.yds.	3.00	3,600
8.	Shoulder and Misc. Work	L.S.	-	-	1,500
					<u>\$17,060</u>
	Engineering & Administration	10	%		1,700
					<u>\$18,760</u>
	Contingencies & Unforeseen	15	%		2,840
					<u>2,840</u>
					<u>\$21,600</u>

III. <u>DIKE AT SOUTH END</u>					
1.	Access	L.S.	-	-	\$ 1,000
2.	Fill	1,200	cu.yds.	2.50	3,000
					<u>\$4,000</u>
	Engineering & Administration	10	%		400
					<u>\$4,400</u>
	Contingencies & Unforeseen				600
					<u>600</u>
					<u>\$5,000</u>



The Commonwealth of Massachusetts

Department of Public Works

Division of Waterways

100 Nashua Street, Boston 14

June 5, 1956

*Rec'd
June 7, 1956*

Hampden County Commissioners
Court House
Springfield, Massachusetts

Gentlemen:

Enclosed please find a copy of a report relative to improving Congamond Lakes in the town of Southwick, which was prepared for the Department by the consulting firm of Charles T. Main, Inc.

I am submitting this for your review and consideration and will plan to hold a meeting in Southwick next week between local and State authorities to further discuss this matter in order to decide what type of work should be undertaken by the Commonwealth. I will notify you as to the date and time of this proposed meeting.

Very truly yours,

Rodolphe G. Besette
RODOLPHE G. BESSETTE

Director, Division of Waterways

Enc.



The Commonwealth of Massachusetts

LEGISLATIVE RESEARCH COUNCIL
LEGISLATIVE RESEARCH BUREAU

STATE HOUSE, BOSTON 33, MASS.

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HERMAN C. LOEFFLER, *Director*

June 7, 1956

County Commissioners of
Hampden County
Springfield, Mass.

Rodolphe G. Bessette, Director, Division of Waterways, has asked me to arrange a conference to be held in Southwick sometime next week between the Southwick Selectmen, the Hampden County Commissioners and Representatives Cowing and Porter to further discuss a report made by Charles T. Main, Inc. relative to providing a new outlet for Congamond Lakes in the town of Southwick, and decide the type and extent of work that should be undertaken by the Department to correct the problem in this area.

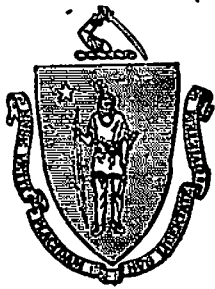
Inasmuch as the Representatives and I are at the State House attending legislative sessions from Monday through Thursday, Friday is the only day available to us to meet with this group. I therefore advise you that all parties named in this letter are requested to meet at the Southwick Town Hall at about three o'clock on Friday, June 15. This is not a public hearing and I trust that only the county commissioners, the selectmen, and members of the legislature, together with the Director of the Division of Waterways, will be the only ones present. Director Bessette has another engagement in the town of Barre at 11 that morning and hopes to be able to reach Southwick by 3 o'clock that afternoon.

Cordially yours,

Ralph Lerche
Senator Ralph Lerche

RL:mm

*Also West Springfield
Water Board*



The Commonwealth of Massachusetts

Senate

State House • Boston

Received
June 14, 1956
in Hampden
Cty Comms' Office

June 13, 1956

TO: Hampden County Commissioners, The Southwick Board of Selectmen,
The West Springfield Water Commission, Representative George W.
Porter of Agawam, Representative William A. Cowing of West
Springfield, and Rodolphe G. Bessette, Director, Division of
Waterways.

Because of the funeral of former Governor Joseph B. Ely to be held at Westfield at 2:00 P.M. Friday afternoon, June 15th, I have this day contacted Rodolphe G. Bessette, Director of the Division of Waterways, D.P.W., and he has suggested that the meeting scheduled to be held at the Town Hall in Southwick at 3:00 P.M. this Friday, be postponed for one week. The same group is to meet at 2:00 P.M. Friday afternoon, June 22nd, at the Southwick Town Hall.

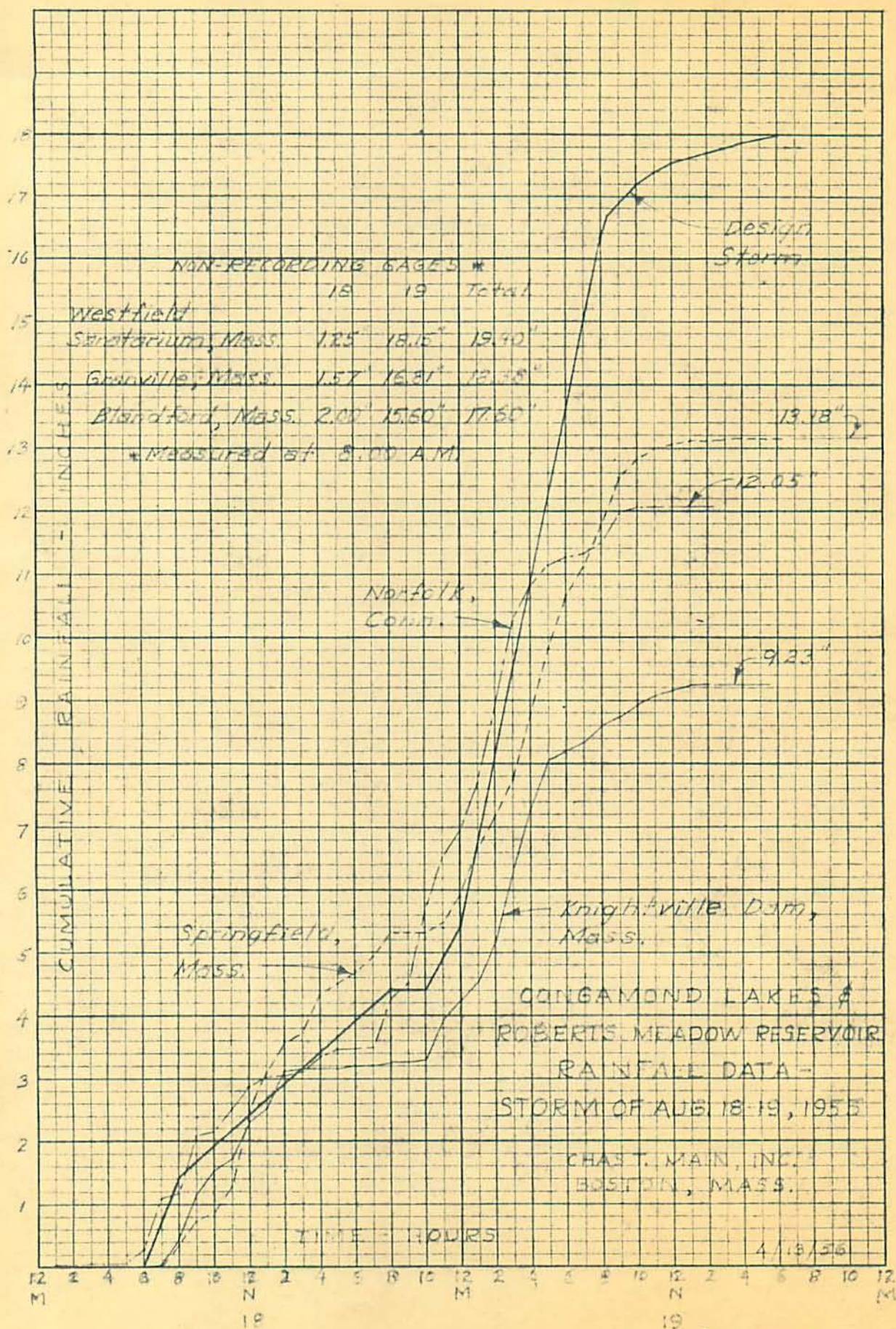
Sincerely yours,

A handwritten signature in cursive script that reads "Ralph Lerche".

RALPH LERCHE

Senator, Hampden, Hampshire and
Berkshire District

RL/md





230

229

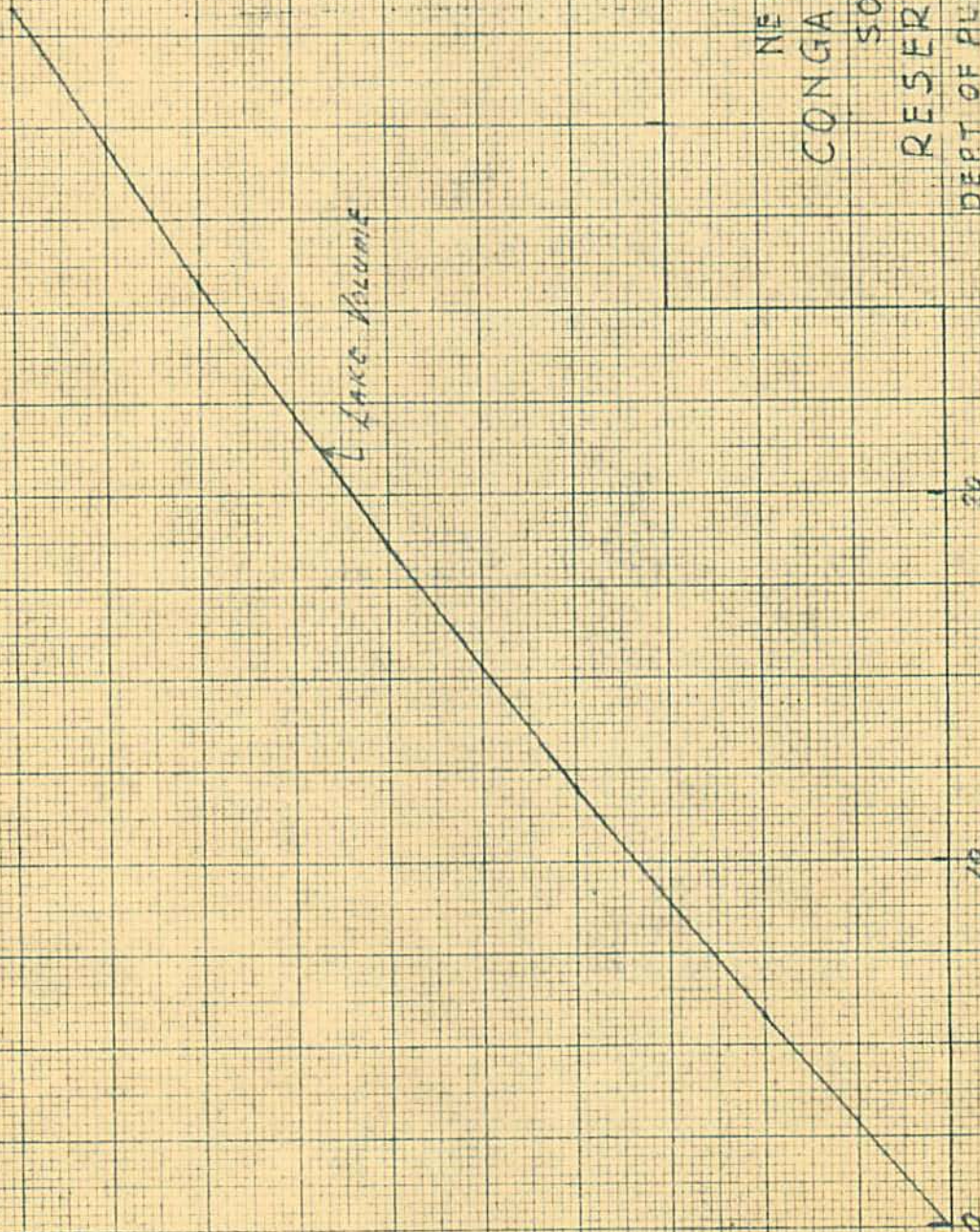
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ELEVATION - FT



LAKE VOLUME

NEW OUTLET

CONGAMOND LAKES

SOUTHWICK

RESERVOIR VOLUME

DEPT OF PUBLIC WORKS OF MASS.

DIVISION OF WATERWAYS

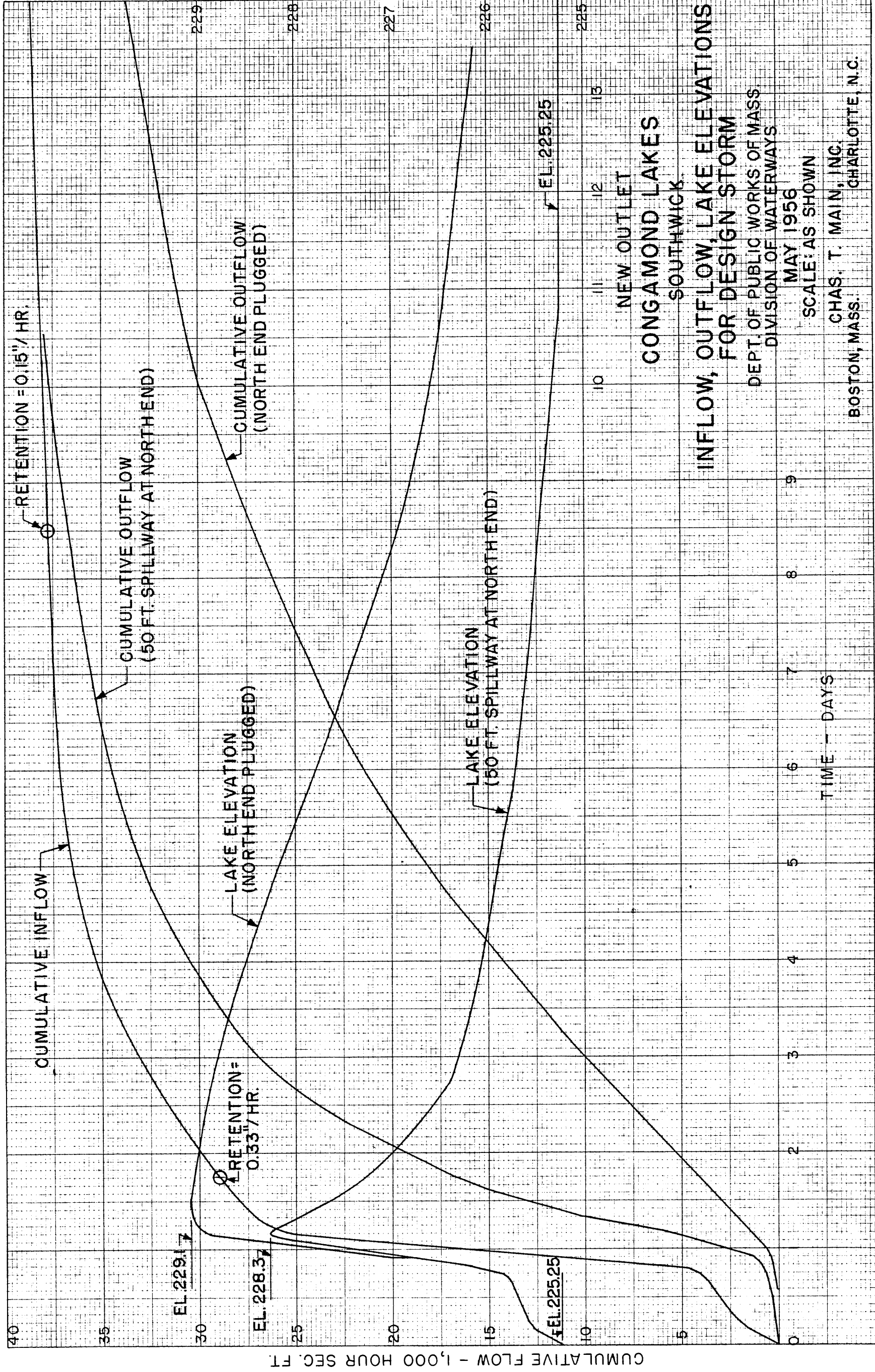
MAY 1956

CHAS. T. MAIN, INC.

BOSTON, MASS.

CHARLOTTE, N.C.

PLATE II



CUMULATIVE FLOW - 1,000 HOUR SEC. FT.

INFLOW, OUTFLOW, LAKE ELEVATIONS FOR DESIGN STORM

CONGAMOND LAKES
SOUTHWICK

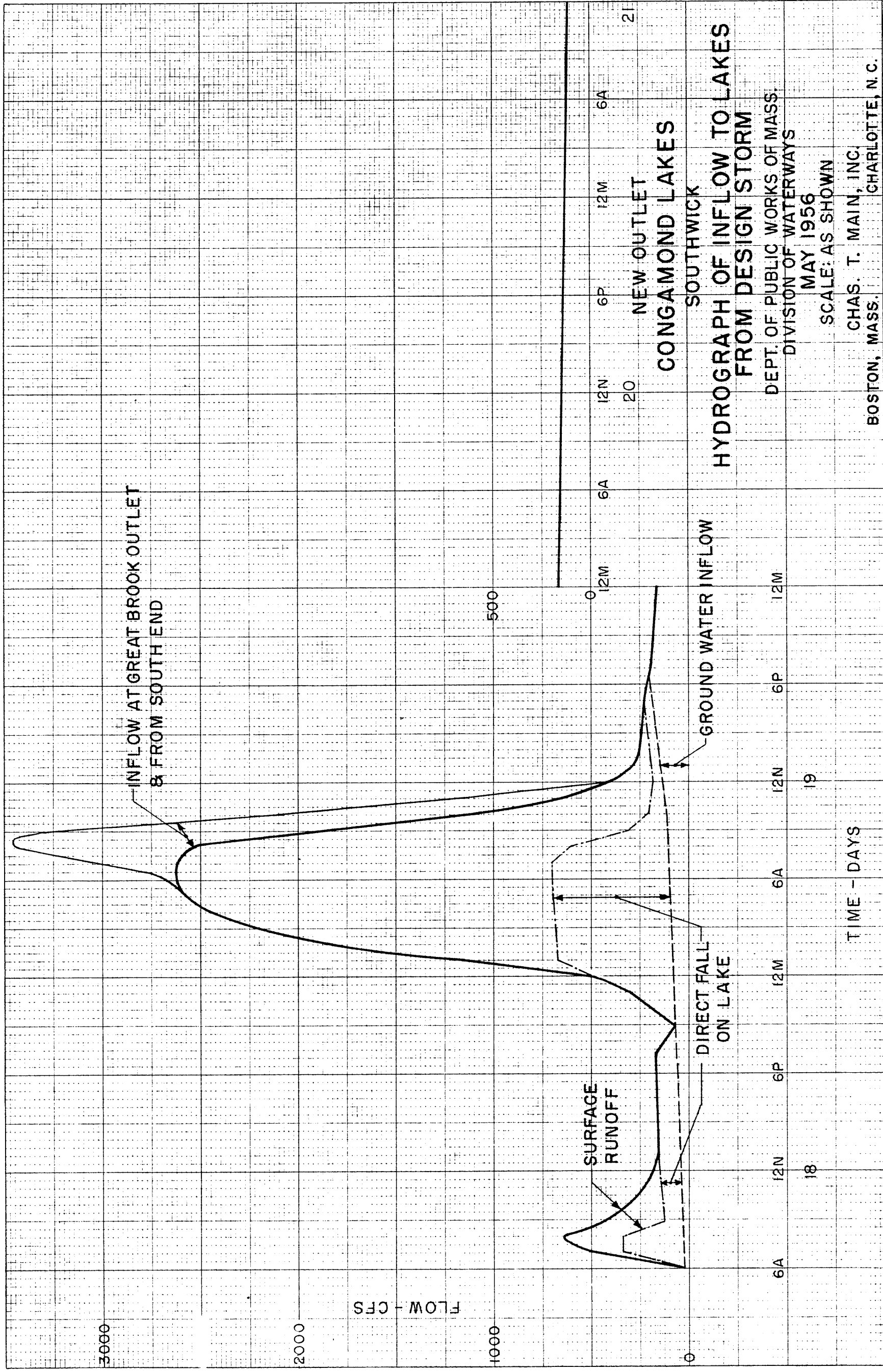
DEPT. OF PUBLIC WORKS OF MASS.
DIVISION OF WATERWAYS

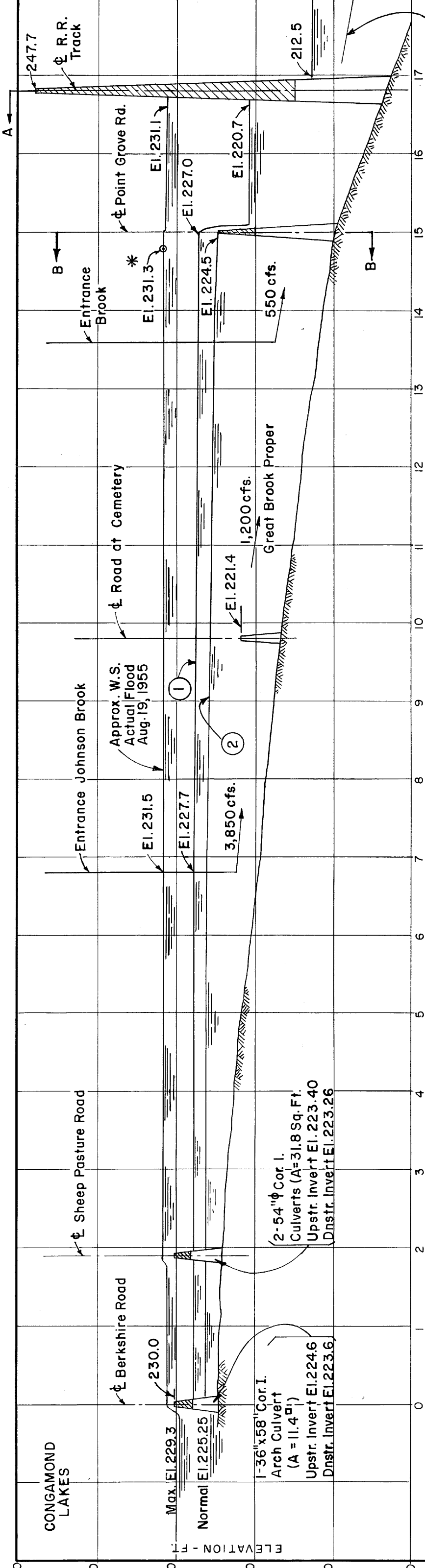
MAY 1956

SCALE: AS SHOWN

BOSTON, MASS. CHAS. T. MAIN, INC. CHARLOTTE, N.C.

PLATE V

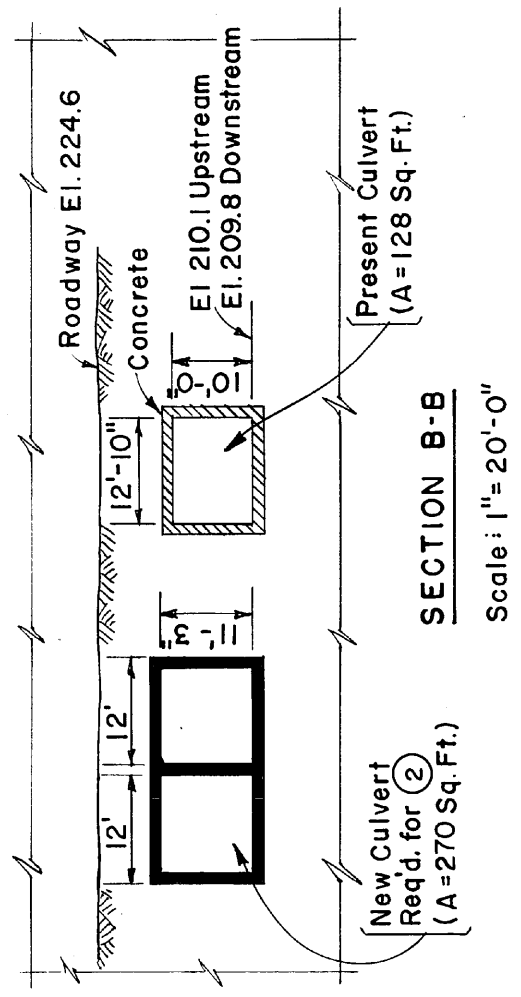
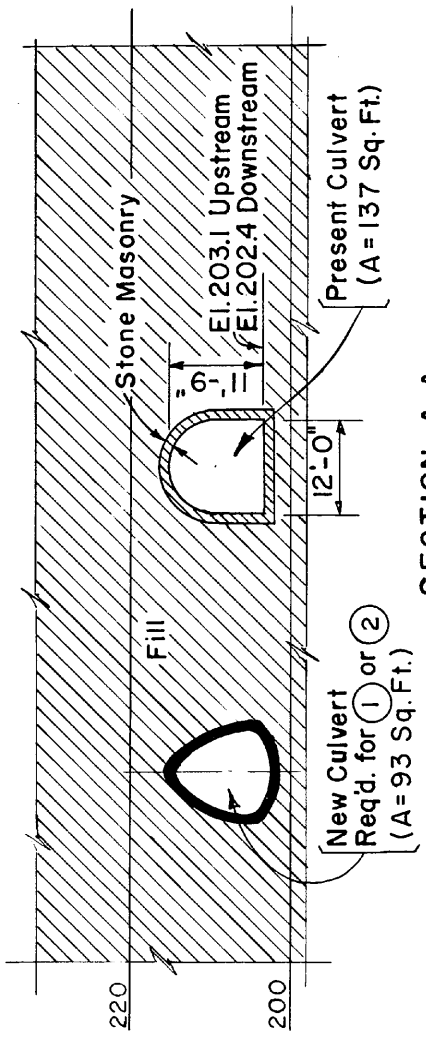




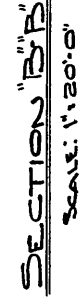
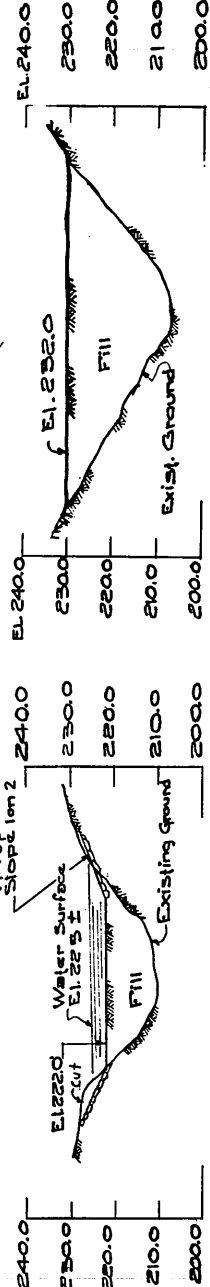
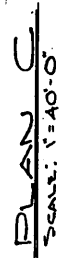
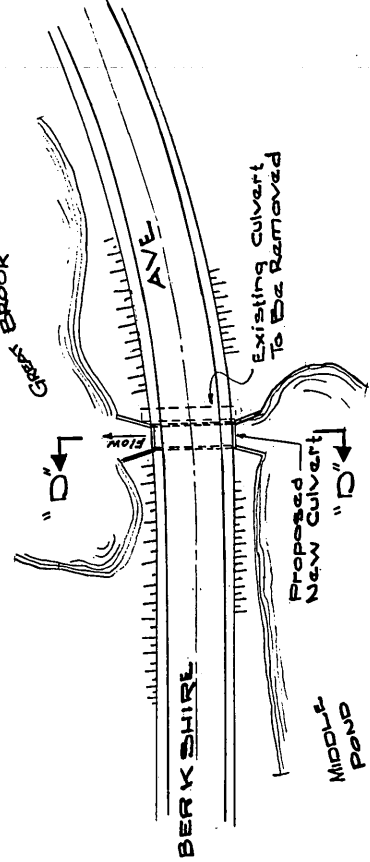
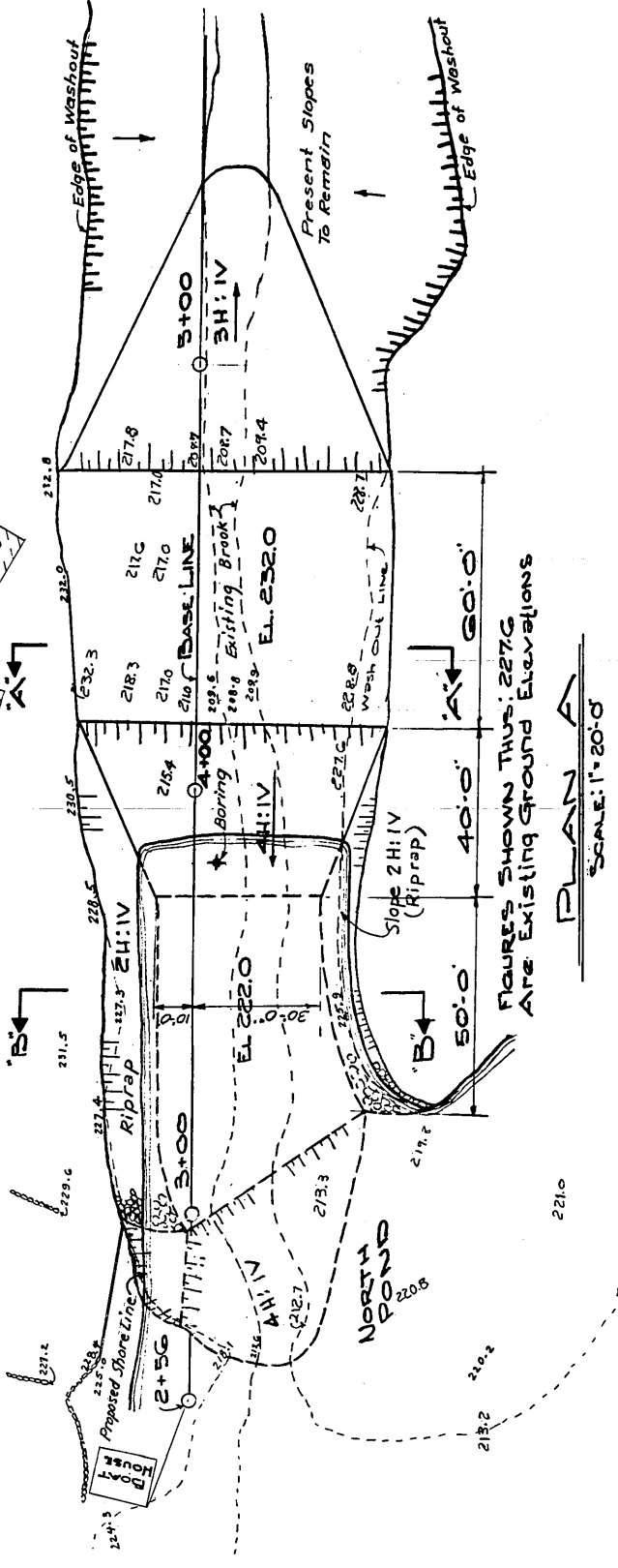
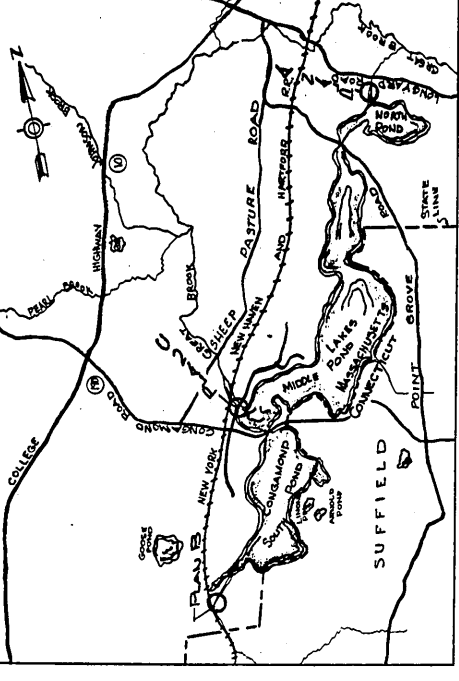
- 1 Approx. W.S. with Added Culvert at R.R.
- 2 Approx. W.S. with Added Culvert at Point Grove Road

PROFILE
Scale: 1" = 1,000 Ft. Horiz.
1" = 10 Ft. Vert.

* Actual El. Measured at Convalescent Home.
Q = 3,610 cfs Max (Actual Flood - Aug. 1956)
Assume Q = 4,000 cfs. for Lowered Levels



NEW OUTLET
CONGAMOND LAKES
SOUTHWICK
PROFILE OF GREAT BROOK
DEPT. OF PUBLIC WORKS OF MASS.
DIVISION OF WATERWAYS
MAY 1956
SCALE: AS SHOWN
CHAS. T. MAIN, INC.
BOSTON, MASS. CHARLOTTE, N.C.



ALTERNATIVE NO. 1

CHAS. T. MAIN, INC.

BOSTON, MASSACHUSETTS



WESTFIELD PAGE

This Will Be a Beautiful Lake Again



A new picture of the dry bed of North Pond at Congamond Lakes created as some of the damage of the Aug., 1955, floods. It will shortly be transformed to the beautiful pond it has always been, according to plans now in possession of the Hampden County Commission. By the erection of an earthen plug at the drainage point off the bottom of the picture, the Division of Waterways of the State Department of Public Works expects to restore the level of the pond and also restore the numerous summer camps and permanent homes to their previous value.

PROMOTED



CAPT. ALBERT N. WEIDHAS

Westfield, June 8—Mrs. Helen N. Weidhas of 91 Orange St. has received word of the promotion of her son, Albert N. Weidhas, to the rank of captain in the Army. He is currently studying at the Language School at Monterey, Cal., where he is majoring in advanced Japanese.

Capt. Weidhas attended Dean Academy prior to his enlistment. He graduated from Officer's Candidate School and served with an armored division in Korea where he was wounded and was awarded the Purple Heart. While convalescing in Tokyo, Japan, he began the study of elementary Japanese and during his advanced study is tops in his class, having excelled three Japanese in their own language.

Capt. Weidhas is married to the former Katherine Payne, daughter of Mr. and Mrs. Charles Payne of Portland, Me. They have a daughter, Karen Marie.

Congamond Restoration Plans Being Prepared

County Commission Studies Report on Conditions Before Deciding on Flood Project

Rudolph G. Bessette, director of the Division of Waterways of the State Department of Public Works, has forwarded to the Hampden County Commission a study of conditions at Congamond Lakes preparatory to deciding on procedures for needed construction to restore the valuable recreation spot, which lost a great deal of its value in the August, 1955, floods.

At the behest of the state department, Charles T. Main, Inc., engineers, have prepared an exhaustive report embracing rainfall and drainage conditions and the suggested enlargement of culverts and reconstruction of earthen dams, which will restore not only the North Pond to its previous state but will make safe all outlets of the immense drainage area around the lakes.

After study by the County Commission there will be a public meeting in Southwick at a time and place still to be announced for the purpose of determining the type of work to be undertaken by the Commonwealth.

In the report, the engineering firm estimates that the earthen plug to recreate North Pond, the reconstruction and enlargement of several culverts and the raising of roadways will cost about \$51,500.

It is also noted in the report that the surface area of the three ponds total 464 acres, which is in the middle of an extensive drainage area.

The engineers noted that North

Pond did not go out until six or eight hours after the torrential rain stopped, giving rise to the belief that not only the rainfall and the drainage into the pond caused the washout, but the inflow of a considerable quantity of ground water. Commission Chairman William H. Stapleton and his fellow members, Ralph P. Walsh and Thomas F. Sullivan, will announce the time and place of the public meeting, which is recommended, as soon as word comes from Director Bessette.

Final Assembly Today for High School Seniors

Parents of Robert Brew Donated \$100 in Memory Of Their Son

Westfield, June 8—More than just a touch of sadness pervaded the final assembly program of Westfield High School seniors this morning when Class President Wayne Damron read a message from Mr. and Mrs. George Brew with respect to the recent death of their son, Robert, who was to have been a member of the graduating class.

Also it was announced that \$100 had been donated in memory of their son, to be used at a future date for use in the industrial arts and safety education programs.

George Velis announced the class gifts to the school which included a Bogen amplifier and speakers for the auditorium which will also be used at Municipal Field for the football games and a backdrop for the auditorium stage. The class also

made a gift of a wheel chair to the Noble Hospital.

President Damron presided the program with Vice-President Leonard Skerker reading Scripture and Secretary Chr. Bednarsky giving the prayer. Historian Mary McGowan led flag salute. The program continued with the singing of the class "Halls of Ivy" with Wayne Damron as class president.

The school will graduate a class of 198 tonight. Diplomas will be awarded to 123 girls and 75 boys at commencement exercises to start at 8 in the Armory on Franklin St. On program is included in the class speakers will be the three ranking honor students, Le B. Skerker, valedictorian; Sandman, salutatorian; and

ASK US ABOUT THE NEW "DODGE DISCOVERY DEAL"

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Holcomb Motor Sales

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'52 FORD SEDAN

4 Dr. 2 Tone Blue, R & H; Dir. Lites, WSW, A Honey \$795

Holcomb Motor Sales

Shop the Northside Now

Johnny's Package, Inc.

BEER & WINE

LO 8-8450 FOR DELIVERY

55 NORTH ELM ST.

500 Cases Beer on Ice

HIGHWAY LOCATION FOR SALE

2 1/2 acre corner with 220 feet of business frontage on U. S. Route 20, Springfield Road, Westfield. Prime business location. 4 room house included. Could be rented to make this property inexpensive to hold.

Asking \$16,000

A. J. AGAN

Tel. LOgan 2-3659

18 CHURCH ST., WESTFIELD

'51 PLYMOUTH SEDAN

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Creeger Dam aka Cass Dam



1937 Southwick

Located on tributary of Great Brook

City/Town	Southwick
Dam	Creeger Dam
Dam	Cass Dam
Name	Creeger, Abraham L
Person	Cass, A
Water	Great Brook

November 3, 1937

Mr. Abraham L. Creeger
Longyard St.
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Chapter 253, Section 45 et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby notified that your dam on a tributary of Great Brook in Southwick has been inspected by our engineer and your attention is called to the following conditions noted and recommendations made by him;

"While some repairs have been made on this small dam, further repairs are necessary on the plank spillway. Also, the top of the dam should be leveled up and raised somewhat, leaving a swale at one end to act as an emergency overflow in time of high water. It is recommended that the owner be notified about these further necessary repairs."

Any further information concerning this matter which you may desire will be furnished by this office upon request.

Yours very truly,

COUNTY COMMISSIONERS

By _____
Chairman

P.S. Copy of this letter is being sent to R. D. Tarant.

October 3, 1945

Mr. Abraham L. Creeger
Longyard Street
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Chapter 253, Section 45 et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that the dam owned by you and A. Cass, located on a tributary of Great Brook in Southwick has been inspected by our engineer and your attention is called to the following conditions noted and recommendations made by him;

"The free discharge of water over the spillway of this earthen structure is obstructed with entangling drift-wood, debris, etc. which should be removed."

Any further information concerning this matter which you may desire will be furnished by this office upon request.

Yours very truly,

COUNTY COMMISSIONERS

By _____
Chairman

October 3, 1945

Mr. A. Cass
Longyard Street
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Chapter 253, Section 45 et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that the dam owned by you and Abraham L. Creeger located on a tributary of Great Brook in Southwick has been inspected by our engineer and your attention is called to the following conditions noted and recommendations made by him;

"The free discharge of water over the spillway of this earthen structure is obstructed with entangling drift-wood, debris, etc. which should be removed."

Any further information concerning this matter which you may desire will be furnished by this office upon request.

Yours very truly,

By _____
Chairman

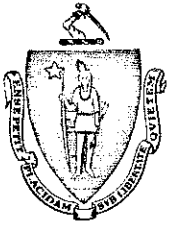
Spencer Dam



1969 Southwick

Dam situated off Vining Hill Road.

City/Town	Southwick
Dam	Spencer Dam
Name	Spencer, D N
Streets	Vining Hill Road



Commonwealth of Massachusetts

County of Hampden

Springfield, Mass.

Office of the
County Commissioners
52 State Street

William J. Stapleton
Chairman

~~Robert J. Mott~~

Floyd M. Fradet

Stephen A. Moynahan

November 26, 1969

Mr. D. N. Spencer
Vining Hill Road
Southwick, Massachusetts

Dear Mr. Spencer:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your dam situated off of Vining Hill Road in Southwick, adjacent to your home, has been inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

"This dam and, in particular the abutment areas, are being allowed to deteriorate. On the day of inspection stoplogs were in the slots of the spillway opening to the full normal height and water in storage was at the level of the upper stoplog. The concrete and stone masonry dam itself is in fair condition. However, evidence on the ground indicates that at some time in the not too distant past, the dam has been overtopped by flood flows and a large quantity of water has washed out soil at the left end of the masonry portion of the dam from the natural sloping ground on the left bank of the stream immediately downstream of the dam. The right abutment area just downstream of the dam is still in the same general condition as reported previously. The stone wall on the right side of the stream valley is failing and the failure appears to be extending further along the wall.

The toe area in the stream bed is satisfactory.

Though the volume of water stored by this dam is quite small, and there is little chance that the sudden release of the water would damage persons and property downstream, it is recommended that conditions at the dam be called to the attention of the owner so that he may take corrective steps to prevent further deterioration of the dam and thus the possible loss of his investment. The dam does come under County jurisdiction because of its height. If it does continue to deteriorate, then a recommendation will eventually be made that the owner be directed to either repair or breach the dam."

The report of the County Hydraulic Engineer is sent to you herewith for your information and guidance. The dam should be properly maintained and problems corrected as they develop, if the structure is to be kept in good condition and further deterioration prevented.

It is recommended that repairs be made at the dam so that you will be protecting your investment in this structure. Failure to do maintenance work when it is needed usually leads to the necessity for much more extensive and expensive repairs at a later date.

Any further information desired in connection with this matter will be made available to you upon request.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

Farm Pond Dam



o Southwick

Also see: Dam Report Section - Southwick. See: Hathaway & Steane Corp Dams. See also: County Roads Plan #11 (1963) "Farm Pond Henry Moss, College Highway".

City/Town	Southwick
Dam	Farm Pond Dam
Name	Hathaway & Steane Corporation

SOUTHWICK
D17009

FARM POND DAM

D17009

NO IMAGE ON FILE FOR THIS RECORD

(INFORMATION EXISTS ONLY ON A FILE CARD FROM THE
OFFICE OF THE FORMER HAMPDEN COUNTY ENGINEER.)

General Cigar Corporation Dams



1964 Southwick

Two dams located on Slab Brook and downstream from Tannery Road. Also known as Upper & Lower Dams and Dam "L" & Dam "M".

City/Town	Southwick
Dam	M Dam
Dam	L Dam
Dam	General Cigar Corporation Dams
Name	General Cigar Corporation
Streets	Tannery Road
Water	Slab Brook

GEORGE H. McDONNELL
PHILIP W. SHERIDAN
EDWARD J. BAYON

**TIGHE
& BOND** CONSULTING ENGINEERS

CIVIL, SANITARY AND ELECTRICAL ENGINEERING
INVESTIGATIONS, REPORTS, PLANS AND SPECIFICATIONS
SUPERVISION OF CONSTRUCTION AND OPERATION

BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991

CD Southwick
December 6, 1963

The Hon. the Board of County Commissioners
Hampden County Court House
37 Elm Street
Springfield, Massachusetts

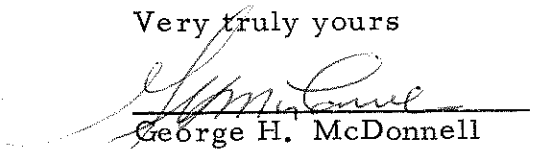
Gentlemen:

Reference is made to your letter of December 4, 1963 and the letter from the Hatheway-Steane Corp., of Hartford, Conn., pertaining to the report on two dams located on Slab Brook in Southwick, at points downstream from Tannery Road.

On checking into this matter, I find that these two dams in question apparently belong to the General Cigar Company. The address of the General Cigar Company is 630 Oakwood Avenue, West Hartford, Conn.

We are enclosing an original and one copy of the letter re-written and addressed to the General Cigar Company. It is recommended that records in your office be changed to indicate that the two dams in question are the property of the General Cigar Company and not the Hatheway-Steane Corporation.

Very truly yours


George H. McDonnell
County Hydraulic Engineer

GHM/cmb
enc.

CD Southwick
November 18, 1964

Ben Moccio, Contractor
1211 Springfield Street
Feeding Hills, Massachusetts

Dear Sir:

Enclosed herewith please find a copy of a communication sent to Mr. Henson of the General Cigar Corporation confirming our conversation and the tentative plans for enlarging and altering the two dams owned by that Corporation on Slab Brook off Tannery Road in Southwick. The contents of my letter are all self-explanatory.

Very truly yours,

George H. McDonnell
County Hydraulic Engineer

GHM/mg

Enc.

CD Southwick
November 18, 1964

General Cigar Co., Inc.
630 Oakwood Avenue
West Hartford, Connecticut

Att: Mr. Walter Henson

Gentlemen:

This will confirm my conversation at the site of your two dams on Slab Brook off of Tannery Road in Southwick on Friday afternoon, November 13, 1964. The conference in the field was at the request of Mr. Ben Moccio, Contractor of 1211 Springfield Street, Feeding Hills, Mass.

Both dams on Slab Brook were viewed in the field and the matter of raising the two dams and changing the spillway facilities was discussed.

As now planned, the dam embankment at each of the two dams will be raised 4 ft. more or less and the existing tube spillways will be extended upstream and then new vertical shafts will be constructed similar to the type of shafts used by the U.S. Soil Conservation Service on small farm pond construction.

At the upper dam you plan to extend the tube spillway by inserting a new corrugated iron pipe into the existing pipe for a distance of about 2 ft. and sealing the joint between the two pipes thru the use of concrete. In order to have adequate space for the concrete seal, it is planned to install a corrugated iron pipe probably 6" in diameter smaller than the existing pipe. The vertical shaft of the new spillway will be constructed on a standard concrete base.

At the lower dam where the existing tube thru the embankment is corrugated iron pipe, the extension will be with the same type of pipe attached

to the existing pipe with a water-tight collar.

The crest elevation of the vertical shaft at each of the two dams will be such as to be slightly below the new swale, around-the-end type, spillways and will also be low enough below the top of the earth embankment to provide adequate freeboard in time of flood flow.

In raising the embankment of each dam it was pointed out by the undersigned that all turf, stumps, vegetation, roots, etc. should be cleared from each of the embankments and the new embankment soil placed upon clean loosened existing embankment material. The embankment should be built up in layers no thicker than 6" or 8" and each layer pounded in thoroughly by passing over the embankment with loaded trucks and/or bulldozers. If a bulldozer is used for compaction purposes, the unit should be heavy and a number of passes should be made over each section of each embankment lift. Care should be taken to be certain that the side slopes of the embankment are also thoroughly compacted.

The top of the finished embankment at each dam should be loamed and seeded to result in a good growth of weed and brush free sod. At each around-the-end swale spillway, the bottom of the spillway should be at an elevation to result in adequate freeboard on the embankment at time of flood flow runoff. The sides and the bottom of the swale should be well loamed, seeded and fertilized to result in an excellent growth of sod to prevent erosion in flood flow time.

Plans and specifications of the proposed additions and alterations to each of the two dams should be filed with the County Commissioners of Hampden County. It is my understanding that you plan to contact the Soil Conservation Service in order that this phase of the work may be done. The drawings should show the embankment as it will be altered, the swale spillway, the altered tube spillway and all pertinent elevations at each of the two dams. The specifications should be typical specifications for earth dam construction and they should cover all phases of the work.

When the plans and specifications have been prepared for each dam, two sets for each of the two dams should be filed with the County Commissioners of Hampden County and a letter should be sent to the County Commissioners requesting permission to alter and enlarge the dams in accordance with the plans being filed. Two checks in the amount of \$5.00 drawn in the name of

CD Southwick

Hampden County should be submitted with the plans and specifications, one check for each set of plans and specifications on each of the dams.

If the undersigned can be of any service to you, please do not hesitate to call or write.

Very truly yours,

George H. McDonnell
County Hydraulic Engineer

GHM/mg

GEORGE H. McDONNELL
PHILIP W. SHERIDAN
EDWARD J. BAYON

TIGHE & BOND CONSULTING ENGINEERS

CIVIL, SANITARY AND ELECTRICAL ENGINEERING
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BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991
CD Southwick
November 18, 1964

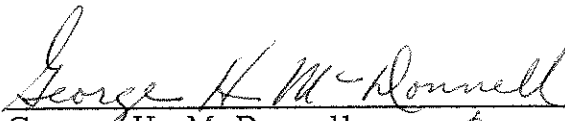
The Hon. the Board of County Commissioners
52 State Street
Springfield, Massachusetts

Gentlemen:

Enclosed herewith for your information, please find a copy of two communications, one to the General Cigar Corporation and one to Contractor Ben Moccio, in connection with a conference held in the field on Friday, November 13, regarding tentative plans for the raising and altering of two dams owned by the General Cigar Corporation in Southwick on Slab Brook off Tannery Road. The contents of my letters are self-explanatory.

The representatives of the General Cigar Corporation and the Contractor will confer with the U.S. Soil Conservation Service and it can be expected that in the not too distant future plans and specifications for the additions and alterations to the two dams will be filed for review and approval by your Honorable Board.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/mg

Enc.

May 11, 1966

General Cigar Co., Inc.
630 Oakwood Avenue
West Hartford, Connecticut

Gentlemen:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of dams of Hampden County, you are hereby advised that the two dams located on Slab Brook and downstream from Tannery Road have been recently inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

'Lower Dam

This dam has been improved since the time of the last inspection. Brush has been cut and a new inlet spillway shaft structure of corrugated iron has been installed. The swale spillway just situated to the left of the dam has been roughly shaped. It should be provided with a good growth of turf in order to control erosion in time of storm water overflow. The toe area of the dam was good. Some seepage occurs about 10 ft. to the left of the discharge pipe outlet. This seepage should be observed from time to time to be certain that it does not increase nor carry fine grained soils with the flow.

A stoplog was noted down in the spillway inlet shaft and this should be removed.

The owner should promote a good growth of turf over the entire embankment.

Upper Dam

A new spillway tube of corrugated iron together with vertical inlet shaft has been installed. The embankment of the dam was satisfactory and appears to have been widened somewhat. It may have also been raised a little. No brush was growing on the embankment. At the time of the inspection, water level was within 2" of the top of the upper stoplog in the corrugated iron shaft spillway.

A plank was noted down in the shaft of the spillway inlet and this plank should be removed. The owner should develop a good growth of turf over the entire dam embankment. "

Any further information desired in connection with these matters will be made available to you upon request.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

May 22, 1968

General Cigar Co., Inc.
630 Oakwood Avenue
West Hartford, Connecticut

Gentlemen:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of dams of Hampden County, you are hereby advised that the two dams located on Slab Brook and downstream from Tannery Road have been recently inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

"Lower Dam

The top of the earth embankment forming this dam should be graded and smoothed with compacted loam, particularly at the left end of the embankment and to the right of the emergency swale spillway. A good growth of turf should be developed over the entire embankment. Brush growth should be kept cut down. The swale spillway at the left end of the embankment should be well maintained and a good growth of turf developed in the swale.

The spillway shaft should be cleaned and cleared of all junk, debris and planks. Seepage at the toe of the dam was about normal.

The toe is soft, but no fine grained soil was moving with the seepage water. Rubbish and junk now deposited at the toe of the dam embankment should be cleared away and deposited elsewhere. The toe area should be weighted with dumped field or cobble stones.

The work as recommended hereinbefore at this Lower Dam should be accomplished in the immediate future.

Upper Dam

The embankment forming this dam is in fair condition. The turf growth should be improved and all brush growing from the embankment, particularly from the downstream face, should be cut down and discouraged.

It was noted that the spillway tube is plugged and the inlet shaft is flooded. Water level in storage on the day of inspection, May 18, 1968, was at the elevation of the top of the embankment. At the left end of the embankment, stored water is seeping over the top of the dam. This condition must be corrected or an emergency swale spillway as built to the left of the Lower Dam must also be built at this Upper Dam. This dam has had a history in the past, of improper and poorly maintained spillway facilities. The problem should be corrected this year."

The various recommendations contained in the above report should be followed immediately. Particular attention should be given to the plugged spillway tube at the Upper Dam and the fact that stored water is seeping over the top of the embankment at the left end of the dam. Since this spillway tube has given trouble in the past, consideration should be given to the construction of a permanent and well stabilized swale spillway around the left end of the dam embankment.

All recommendations of the County Hydraulic Engineer must be carried out as soon as possible.

Any further information desired in connection with these matters will be made available to you upon request.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

GEORGE H. M. McDONNELL
PHILIP W. MCERIDAN
EDWARD J. DAYON

**TIGHE
& BOND**

CONSULTING ENGINEERS

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BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991

CD Southwick
March 17, 1969

General Cigar Company, Inc.
630 Oakwood Avenue
West Hartford, Connecticut

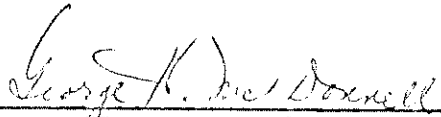
Gentlemen:

Reference is made to your dams in the Town of Southwick, and the fact that there now exists a heavy snow cover throughout Western Massachusetts. The water content of this snow cover, coupled with a warm spring rain could result in extremely heavy runoff conditions. Consequently, the Commissioners of Hampden County have directed that I advise you to be sure that the spillway facilities at your dams are clear of any obstruction and that you take all precautions necessary to protect your dams as well as persons and property downstream.

Any flashboards or stoplogs should be removed from the spillway facilities and frequent periodic examinations should be made for the purpose of removing any debris which might collect to block spillways and reduce overflow capacities.

If you have any question in connection with this matter, the undersigned can be reached at the above address and telephone number.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/amd

GEORGE H. MCDONNELL
PHILIP W. GUERHAN
EDWARD J. BAYON

**TIGHE
& BOND**

CONSULTING ENGINEERS

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SUPERVISION OF CONSTRUCTION AND OPERATION

BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3331

CD Southwick
March 17, 1969

Hathaway & Steane Corporation
College Highway
Southwick, Massachusetts

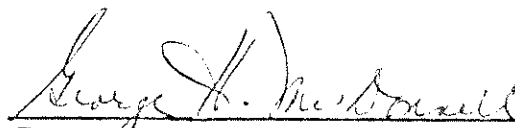
Gentlemen:

Reference is made to your dams in the Town of Southwick, and the fact that there now exists a heavy snow cover throughout Western Massachusetts. The water content of this snow cover, coupled with a warm spring rain could result in extremely heavy runoff conditions. Consequently, the Commissioners of Hampden County have directed that I advise you to be sure that the spillway facilities at your dams are clear of any obstruction and that you take all precautions necessary to protect your dams as well as persons and property downstream.

Any flashboards or stoplogs should be removed from the spillway facilities and frequent periodic examinations should be made for the purpose of removing any debris which might collect to block spillways and reduce overflow capacities.

If you have any question in connection with this matter, the undersigned can be reached at the above address and telephone number.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/amd

GEORGE H. McDONNELL
PHILIP W. SHERIDAN
EDWARD J. BAYON

TIGHE & BOND

CONSULTING ENGINEERS

CIVIL, SANITARY AND ELECTRICAL ENGINEERING
INVESTIGATIONS, REPORTS, PLANS AND SPECIFICATIONS
SUPERVISION OF CONSTRUCTION AND OPERATION

BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991

CD Southwick
June 1, 1970

The Honorable the Board of County Commissioners
52 State Street
Springfield, Massachusetts

Gentlemen:

Re: General Cigar Corp. Dams

On Friday, May 29th, at the request of Mr. Shagnon of the General Cigar Corp., the undersigned made an inspection of the Upper Dam and the Lower Dam, dams "L" and "M" as described in my report on Southwick dams dated November 20, 1969.

The purpose of the inspection was to advise Mr. Shagnon of the maintenance necessary to improve the dam embankments and the spillway capacity of the Upper Dam.

The undersigned advised Mr. Shagnon to cut all brush, to fertilize and seed areas of each embankment where grass growth is thin and, at the upstream dam, repair the downstream slope where overflowing water has eroded away soil from the embankment face.

A new swale spillway around the left end of the Upper Dam embankment was recommended to Mr. Shagnon, and he plans to construct this spillway during the week beginning June 1st. The emergency swale spillway will be dug thru natural ground, will be approximately 6 feet wide, and the spillway bottom will be a few inches above normal elevation of water stored in the upper pond. The swale spillway will then be loamed, fertilized and seeded to provide a good thick growth of turf. In the future, whenever the principal spillway becomes plugged or the rate of runoff exceeds its capacity, water will flow around the dam embankment thru the swale rather than overflow the embankment.

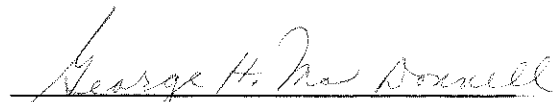
TIGHE
& BOND CONSULTING ENGINEERS

-2-

The undersigned will make an inspection of the dams again later this year to observe the improvements being made by the owner.

The information contained herein is sent to you for file purposes.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/amd

GEORGE H. McDONNELL
PHILIP W. SHERIDAN
EDWARD J. BAYON

**TIGHE
& BOND**

CONSULTING ENGINEERS

CIVIL, SANITARY AND ELECTRICAL ENGINEERING
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A new swale spillway around the left end of the Upper Dam embankment was recommended to Mr. Shagnon, and he plans to construct this spillway during the week beginning June 1st. The emergency swale spillway will be dug thru natural ground, will be approximately 6 feet wide, and the spillway bottom will be a few inches above normal elevation of water stored in the upper pond. The swale spillway will then be loamed, fertilized and seeded to provide a good thick growth of turf. In the future, whenever the principal spillway becomes plugged or the rate of runoff exceeds its capacity, water will flow around the dam embankment thru the swale rather than overflow the embankment.

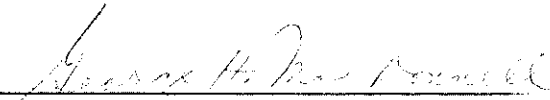
TIGHE
& BOND CONSULTING ENGINEERS

-2-

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Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/amd

GEORGE H. McDONNELL
PHILIP W. SHERIDAN
EDWARD J. BAYON

**TIGHE
& BOND**

CONSULTING ENGINEERS

CIVIL, SANITARY AND ELECTRICAL ENGINEERING
INVESTIGATIONS, REPORTS, PLANS AND SPECIFICATIONS
SUPERVISION OF CONSTRUCTION AND OPERATION

BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991

CD Southwick
June 1, 1970

The Honorable the Board of County Commissioners
52 State Street
Springfield, Massachusetts

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The purpose of the inspection was to advise Mr. Shagnon of the maintenance necessary to improve the dam embankments and the spillway capacity of the Upper Dam.

The undersigned advised Mr. Shagnon to cut all brush, to fertilize and seed areas of each embankment where grass growth is thin and, at the upstream dam, repair the downstream slope where overflowing water has eroded away soil from the embankment face.

A new swale spillway around the left end of the Upper Dam embankment was recommended to Mr. Shagnon, and he plans to construct this spillway during the week beginning June 1st. The emergency swale spillway will be dug thru natural ground, will be approximately 6 feet wide, and the spillway bottom will be a few inches above normal elevation of water stored in the upper pond. The swale spillway will then be loamed, fertilized and seeded to provide a good thick growth of turf. In the future, whenever the principal spillway becomes plugged or the rate of runoff exceeds its capacity, water will flow around the dam embankment thru the swale rather than overflow the embankment.

TIGHE
& BOND CONSULTING ENGINEERS

-2-

The undersigned will make an inspection of the dams again later this year to observe the improvements being made by the owner.

The information contained herein is sent to you for file purposes.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/amd

Hathaway & Steane Corporation Dams aka Hatheway & Steane Corporation Dams aka Farm Pond Dams



1964 Southwick

There are three (3) dams - known as Dam No 1, Dam No 2 and Dam No 3. Two on Slab Brook and one adjacent to golf course property.

City/Town	Southwick
Dam	Hathaway & Steane Corporation Dams
Dam	Farm Pond Dams
Dam	Hatheway & Steane Corporation Dams
Name	Hatheway & Steane Corporation
Name	Tysz, Basil
Name	Hathaway & Steane Corporation
Railroads	New York New Haven & Hartford Railroad
Streets	Route 10
Streets	Route 202
Streets	College Highway
Streets	Tannery Road
Water	Kellogg Brook
Water	Slab Brook

December 16, 1959

Hathaway & Steane Co.
College Highway
Southwick, Mass.

Gentlemen:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your dams on Slab Brook have been inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

"Dam #1 (first dam east of College Highway)

The embankment is in fair condition. A small gulley has been eroded from surface wash from the right side of the embankment and this condition should be corrected by preventing surface wash from flowing onto the embankment. One stoplog was in place in the spillway and the pond was about empty."

Slab Brook Dam - Dam #4 (just east of the N. Y., N. H., & H. tracks)

The embankment of this structure is in fairly good condition but needs some minor maintenance. The spillway inlet was found blocked with a metal drum and other debris. The spillway should be cleared and cleaned."

Any further information concerning this matter which you may desire will be furnished by this office upon request.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

THE HATHEWAY-STEANE CORPORATION

P. O. BOX 854

HARTFORD 1, CONNECTICUT

December 29, 1959

Board of County Commissioners
Hampden County
37 Elm Street
Springfield, Massachusetts

Gentlemen:

We wish to acknowledge and thank you for your letter of December 16, 1959, regarding dams.

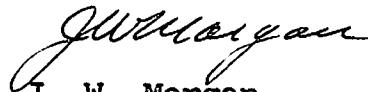
The small eroded gulley that you refer to near "Dam #1" (first dam east of College Highway) has been repaired as you suggested.

The "Slab Brook Dam - Dam #4" (just east of the Railroad Tracks) is not ours. We understand that it is on land owned by a Basil Tysz of North Longyard Road, Southwick, Massachusetts.

In this regard, we would appreciate any literature, copies of laws, etc. that you might be able to send us relating to the regulation of dams, as we wish to be sure that we are operating in conformance with them.

Your kind cooperation is appreciated.

Very truly yours,


J. W. Morgan
Vice President

FHR:TMA

copy of this letter sent to
George H. McDonnell, County
Hydraulic Engineer, on Jan.12,1960.

CD Southwick

Jan. 15, 1960

**Hatheway-Steane Corp.
P. O. Box 854
Hartford 1, Conn.**

Att: J. W. Morgan, Vice President

Gentlemen:

Reference is made to your communication of Dec. 29, 1959, sent to the Board of County Commissioners of Hampden County, pertaining to dams owned by your firm in Southwick.

The undersigned is County Hydraulic Engineer and the Board of County Commissioners have directed that I answer your communication and provide you with any information you desire.

The Board wishes to thank you for your information concerning Slab Brook Dam #4 located just east of the railroad track. Recommendations in connection with this dam will be sent to Mr. Basil Tyes of North Longyard Road in Southwick.

I am enclosing herewith a copy of the sections of Chapter 253 of the General Laws of the Commonwealth of Massachusetts regarding construction and maintenance of dams. You will note therein that if a dam impounds a million gallons of water or more, is 10 feet high or higher or is on a drainage area of one square mile or larger, that dam comes under the jurisdiction of the County Commissioners of the County in which the dam is located. The drainage area of your various dams in Southwick is much less than a square mile. Your dams are borderline cases in that they would come under County jurisdiction based on height and storage of water. At the present time, they are not considered as definitely under County control and the reports are sent to you for information purposes only.

Should any of your dams be enlarged to a point where a million gallons of water would be impounded or the dams would become 10 ft. high, then any necessary maintenance needed for the safety of the dams could be ordered done by the County Commissioners. At the present time, the County Commissioners send you the information for your action as you see desirable. In so doing, certain maintenance that would be economical to do at present could prevent major repair work at some future date.

If there is any question in connection with your dams, kindly either call or write the County Commissioners or the undersigned. Engineering services of an advisory nature are provided at no cost to you, thru the County Commissioners.

Very truly yours,

George H. McDonnell
County Hydraulic Engineer

GHM/mb

Nov. 23, 1960

Mr. Basil Tysz
North Longyard Road
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that a dam located on your property on Slab Brook, just east of the NY, NH & H tracks, has been inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

"The dam is in the same general condition as noted previously. The spillway inlet is blocked with debris and a steel barrel. The spillway should be kept clear of debris, if overtopping and breaching of the earth embankment is to be prevented. The embankment section of this small dam is in fairly good condition."

It is our understanding that this small earth embankment, forming the pond in question, is on your property. If this is not so, please notify us so that we may correct our records.

The condition at this small dam does not present a danger to persons and property downstream since the quantity of water stored by the dam is small. However, the dam no doubt is of value to you and since, in the opinion of the County Hydraulic Engineer, the dam is endangered due to possible overtopping because of the plugged spillway inlet, it is recommended that you take the necessary steps to remove the debris and the barrel from the inlet to the spillway tube.

Oct. 10, 1962

Hathaway & Steane Co.,
College Highway
Southwick, Mass.

Gentlemen:

In accordance with the provisions of Chapt. 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your various dams situated on Slab Brook, in Southwick, have been inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

All of the dams on your property were found to be in relatively good condition at the time of the annual inspection in September. However, at most of the dam embankments it was noted that brush and small tree growth is becoming quite thick and the County Hydraulic Engineer recommends that this growth be cut and kept down, so that thorough inspections of the embankments can be made and any need for maintenance noted at an early date. Sod growth should be promoted on all embankments. Any debris found in spillway inlet structures or in the spillway tubes themselves should be removed.

Any further information concerning these matters which you may desire will be furnished by this office upon request.

Very truly yours

BOARD OF COUNTY COMMISSIONERS

October 30, 1963

Hathaway-Steane Corp.,
College Highway
Southwick, Mass.

Gentlemen:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of dams of Hampden County, you are hereby advised that the upper of the two dams, located on Slab Brook and downstream from the Tannery Road, has been recently inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

"The embankment should be cleared of brush and all small tree growth. The spillway tube inlet is partly blocked with a broken slab of concrete that should be removed. The spillway inlet structure masonry is in need of repair. This work should be done within the next 6 months."

Any further information desired in connection with this matter will be made available to you upon request.

Very truly yours

BOARD OF COUNTY COMMISSIONERS

CD Southwick
December 6, 1963

The Hon. the Board of County Commissioners
Hampden County Court House
37 Elm Street
Springfield, Massachusetts

Gentlemen:

Reference is made to your letter of December 4, 1963 and the letter from the Hatheway-Steane Corp., of Hartford, Conn., pertaining to the report on two dams located on Slab Brook in Southwick, at points downstream from Tannery Road.

On checking into this matter, I find that these two dams in question apparently belong to the General Cigar Company. The address of the General Cigar Company is 630 Oakwood Avenue, West Hartford, Conn.

We are enclosing an original and one copy of the letter re-written and addressed to the General Cigar Company. It is recommended that records in your office be changed to indicate that the two dams in question are the property of the General Cigar Company and not the Hatheway-Steane Corporation.

Very truly yours

GHM/cmb
enc.

George H. McDonnell
County Hydraulic Engineer

October 21, 1964

Hathaway-Steane Corp.
College Highway
Southwick, Massachusetts

Gentlemen:

In accordance with the provisions of Chapter 253, Section 45, et seq. for the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your two dams on Slab Brook upstream of Tannery Road and your small dam on the feeder stream of Kellogg Brook near golf course property have been inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

Dam No. 1 (Slab Brook)

"The embankment at this dam is in fair condition but needs brushing and clearing of all weed and miscellaneous growth. The owner should develop a good growth of turf on the dam embankment. On the day of inspection, the pond was empty and no stoplogs were in the slots of the spillway intake structure. The tube thru the dam was in satisfactory condition."

Dam No. 2 (Slab Brook)

"This pond was found to be empty and no flashboards were in the slots of the spillway intake structure. The tube thru the dam was in satisfactory condition. However, the dam is in need of brushing and the owner should develop a good growth of turf on the surface and the slopes of the dam embankment."

Dam No. 3 (Near golf course)

"The outlet at this dam is the small brook that discharges from the pond, thru golf course property, at the left of the ridge of earth that forms

the elevation of the upper stoplog was about 18" below the top of the concrete inlet structure. Water level in storage was at the elevation of the top stoplog. "

To properly protect your investment at these dams, you should keep all brush growth cut down and develop a good growth of turf on each of the two embankments. Spillway structures should be kept clean and clear and well maintained.

Any further information desired in connection with these matters will be made available to you upon request.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

October 21, 1964

Mr. Basil Tysz
c/o Hathaway & Steane Corp.
College Highway
Southwick, Massachusetts

Dear Sir:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of dams of Hampden County, you are hereby advised that your dam located in the Town of Southwick on Slab Brook and easterly of the NY, NH & H railroad tracks, has been recently inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

"Sticks and boards in the spillway inlet shaft should be removed and all debris kept out of the structure. All of the small tree and brush growth on the dam embankment, both on the surface of the pond side slope and on the surface of the downstream slope, should be kept cut and a good growth of turf promoted. On the day of inspection, water level in storage was at the crest of the upper stoplog in the spillway structure. The elevation of the upper stoplog was about 24" down from the top of the concrete inlet structure."

A year ago we wrote to you and pointed out the need for properly maintaining your dam, particularly as related to keeping the spillway structure clear of debris and preventing the growth of brush on the embankment. It is recommended that you give serious consideration to the removal of all brush

growth on the dam embankment and the planting of seed for the promotion of a good growth of sod at an early date.

If you have any question in connection with the recommendations contained herein, please call or write our Board.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

October 30, 1963

Mr. Basil Tysz
c/o Hathaway & Steane Corp.,
College Highway
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of dams of Hampden County, you are hereby advised that your dam located in the Town of Southwick on Slab Brook and easterly of the NY, NH & H railroad tracks, has been recently inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

" Brush on the embankment, particularly the upstream and downstream face should all be cut down. Sticks and boards in the spillway inlet should be removed to prevent plugging of the spillway facility. "

In order that your dam can be properly inspected and maintained, brush growth should be kept cut down. A good growth of turf should be promoted on the dam embankment. The spillway inlet structure and spillway tube should be cleaned from time to time to prevent the accumulation of any sticks, debris, boards, etc. The presence of these materials will reduce the spillway capacity.

If you have any question in connection with the recommendations contained herein, please call or write our Board.

Very truly yours

BOARD OF COUNTY COMMISSIONERS

three(3)ed

Specifications for

HATHAWAY STEANE CORP. FARM POND

COLLEGE HIGHWAY, SOUTHWICK

HAMPDEN COUNTY, MASSACHUSETTS

PLAN NO. MA-732

October 2, 1964

FARM POND PLAN

Hathaway - Steane Corp.

Cooperator

College Highway, Southwick, Hampden Co., Mass.

Location

DESIGN DETAILS

Drainage Area 82 Acres
 Design Runoff 0.50 1.98 CFS
 Pond Area 1.1 Acres
 Reservoir Capacity 4.4 Acres - Ft.
 Reservoir Capacity 1,440,000 Gallons
 Pipe Spillway Capacity 19.4 CFS
 Vegetated Spillway Capacity 2.5 x 40 430 CFS

Southwick Mass.-Conn.

Quadrangle 7 1/2'Latitude 42° 4' 30'Longitude 72° 46' 22'

MATERIALS

Item	Quantity	Unit		
Site preparation	.6	Ac.		
Compacted fill	1658	C.Y.		
✓ 1/2" φ BCCM riser 36" 9' 18" stub	1	ea.		
✓ 18" φ BCCM pipe watertight	48	L.F.		
✓ 18" φ " collars "	3	ea.		
✓ Antiseep diaphragms #5	2	ea.		
Debris shield	1	ea.		
Concrete base & bent	1.7	C.Y.		
Roofing preparation	1	Gal.		
Stone for riprap	11	C.Y.		
Seed fertilizer & lime	.6	Ac.		
Labor laying pipe etc.	8	M.D.		
Lumber for flash boards	51	FBM		

Approved

Area Conservationist

Malcolm J. Huber
 (Engineer *SPR*)

Date

Date

10/2/64

Date

REFERENCE

U. S. DEPARTMENT OF AGRICULTURE
 SOIL CONSERVATION SERVICE
 ASSISTING
 HAMPDEN
 SOIL CONSERVATION DISTRICT

DRAWING NUMBER

MA-732

SHEET 1 OF 4DATE 10/2/64

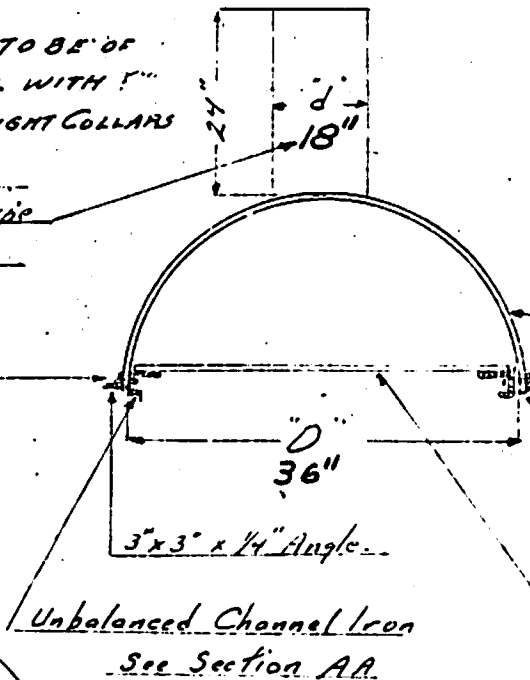
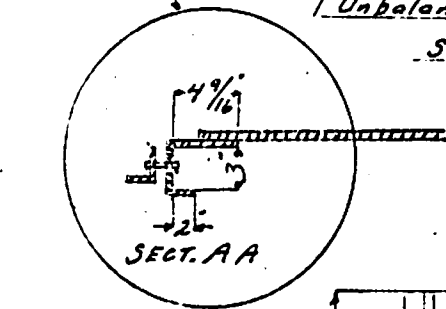
STATE BOARD FISHERIES AND GAME

ALL OUTLET PIPE TO BE OF
WATERTIGHT CONST. WITH 5"
12" LONG WATERTIGHT COLLARS

Outlet Stub.
Corr. Galv. Metal Pipe
Double Riveted

~~STATE OF CONNECTICUT~~
Hathaway Steane Corp
College Highway
Southwick Hampden Co. Mass.
D-As Required 12" to 72" L.I.C.
"d" - As Required

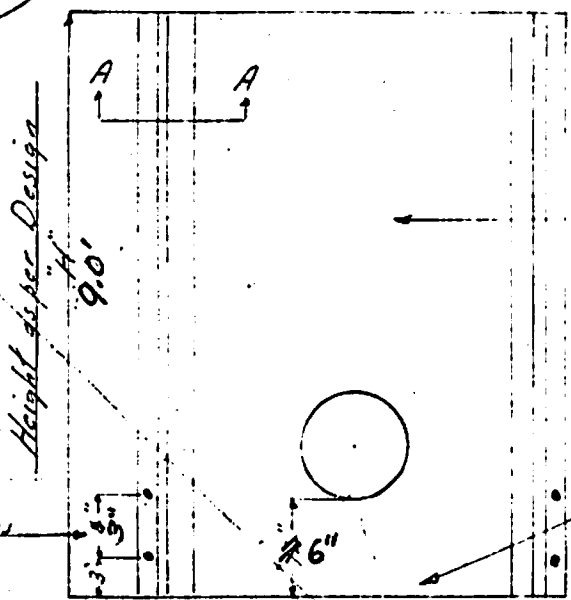
Bolt Angle and
Channel Together
with 3/8" Bolts.
Space 10" c/c



A.C.C.G. Metal Pipe
Gage same as used in Full
Circle Pipe

Fill between Pipe and Channel Iron
and Angle to make water tight.
with Asphalt, same as used in
Paving of Full Round Pipe.

1" Rods Welded to Channel
Spaced 12" c/c.
Carry unbalanced Channel across bottom
on inside to take Bottom of stop leg in
Vertical Channel and Weld to Bottom.



Entire Unit to be given
one Shop Coat of Tar Base Paint

Weld 3/16" sheet to bottom all around

Spillway to be set in Concrete
or Drive Iron stakes into Ground
around spillway and bolt unit
to stakes.

48" of 18" watertight BCCM pipe
3 " " " collars

2 #5 Antiseep diaphragms.

A.J. Runnals, Chief Engineer
N. E. Metal Culvert Co.

Nov 17 1952 ADV 9-18-4

CONSTRUCTION SPECIFICATIONS

Hathaway Steane Corp. Farm Pond
College Highway, Southwick
Hampden Co., Mass.

Plan No. MA-732
October 2, 1964

Number 1
SITE PREPARATION

- I. Clearing and Grubbing. The area to be covered by the reservoir below the normal water line, the structure site, and borrow areas shall be cleared of all trees, brush, fences, and other objectionable material. Within the limits of the dam and appurtenances and the borrow area, stumps, roots, and other objectionable material shall be removed to a depth of 6 inches below the ground surface. On the remaining specified area, all trees, brush, and stumps shall be cut off approximately level with the ground surface.
- II. Stripping. The area to be covered by the earth embankment and the surface of the borrow area shall be stripped of all grass, roots, vegetative materials, objectionable soil or other objectionable materials to a depth that will insure the removal of any materials which will prevent bond between the foundation and the fill.
- III. Disposal. Trees, stumps, debris, and spoil removed in the clearing and stripping operations shall be disposed of outside the area to be occupied by the dam and reservoir, as directed by the owner or his representative. Sufficient topsoil is to be stockpiled in a convenient location for use on the embankment and other disturbed areas to facilitate seeding.

DATE 1-60

HEAD OF E. & W.P. UNIT

APPROVED: *[Signature]*

REFERENCE

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
ENGINEERING & WATERSHED
PLANNING UNIT
UPPER DARBY, PENNSYLVANIA

DRAWING NO.
ESNE-75
SHEET 1 OF 1
DATE JAN., 60

CONSTRUCTION SPECIFICATIONS

Hathaway Steane Corp. Farm Pond
College Highway, Southwick
Hampden Co., Mass.

Number 2
EARTH FILL

Plan No. MA-732
October 2, 1964

- I. Scope. This item shall include the excavation, transportation, and placement of materials and the performance of other operations in connection with the construction of the earth fill dam as shown on the drawings or as herein specified.
- II. Material. The material for the fill shall be obtained from the designated areas. The material shall be free from stumps, wood, brush, roots, sod, rubbish, and other matter that may decay. It should also be free of stones over two (2) inches in diameter where compacted by hand or mechanical tampers, or over six (6) inches in diameter where compacted by rollers or other equipment. Frozen material shall not be placed in the fill, nor shall the fill material be placed on a frozen foundation.
- III. Preparation of Foundation. Upon completion of the stripping operation and just prior to placing the fill material on any portion of the foundation, that portion shall be scarified, plowed, or disked to a depth of three (3) inches. All objectionable material exposed by this operation shall be disposed of outside the limits of the fill.
- IV. Core Trench. Where specified, a core trench shall be excavated along or parallel to the central axis of the earth fill as shown on the plans. The width of the trench shall be governed by the equipment used for excavation, with the minimum width being four (4) feet.

If a core trench is needed the minimum depth shall be three (3) feet or the depth shown on the plans. If large boulders or bed-rock is encountered in the excavation, the minimum depth will not be required if, in the opinion of the Engineer, the trench cannot be excavated to the required depth. The rock or boulders shall be cleared of all materials to insure adequate bonding of backfill material to the rock. The side slopes of the trench shall be 1 on 1 or flatter.

The backfill material for the core trench shall be the most impervious material available and shall be compacted with equipment or rollers to assure maximum density and minimum permeability. Where rock is encountered, the fill material shall be placed in three-inch layers and compacted by hand or mechanical tampers. The fill material shall contain sufficient moisture to insure adequate bonding to the rock. Backfilling shall continue in three-inch layers until the depth of fill over the rock is such that acceptable density may be obtained by using construction equipment with a maximum of six-inch layers for the compaction operation.

REFERENCE

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
ENGINEERING & WATERSHED
PLANNING UNIT
UPPER DARBY, PENNSYLVANIA

DRAWING NO.

ESNE-76

SHEET 1 OF 3

DATE JAN., 60

APPROVED *[Signature]* HEAD OF E. & W.P. UNIT DATE 1-60

CONSTRUCTION SPECIFICATIONS

Number 2 EARTH FILL

- V. Imbedded Conduits. Imbedded conduits shall mean pipes installed for the purpose of draining the reservoir, pipe spillways, pipes for stock watering developments, or other pipes or conduits installed or existing under the fill.

Excavation for conduits shall be made to grades and lines shown on the plans or as indicated by construction stakes. Care should be taken not to excavate below the depths specified. Excavation below grade shall be corrected by placing firmly compacted layers of earth to provide a good foundation. If rock or boulders are exposed in the bottom of the excavation, they shall be removed to a minimum depth of eight (8) inches below the invert grade of the pipe and the excess excavation replaced with firmly compacted earth to the specified grade.

The pipe shall be installed and the excavation backfilled as specified in paragraph VIII before starting the placement of the earth fill.

- VI. Placing and Spreading Material. The placing and spreading of material shall be started at the lowest part of the section under construction and the fill carried up in layers of six (6) inches. The layers shall slope slightly towards the reservoir to prevent puddles and provide for faster runoff in case of rain. Where possible, the layers should extend over the entire area of the fill. The distribution and gradation of the materials throughout the fill shall be such that there be no lenses, pockets, streaks, or layers of material differing substantially in texture or gradation from the surrounding material. The most porous borrow material shall be placed on the downstream portions of the embankment.

- VII. Compaction. Each layer of fill material shall be compacted by routing the construction equipment so that all parts of each layer are equally compacted. Bulldozers, carry-alls, trucks, farm tractors, or rollers may be used for the compaction. Fill material should contain sufficient moisture so that it can be formed into a ball without crumbling. If water can be squeezed out of the ball, it is too wet to compact properly.

- VIII. Backfill Adjacent to Structures. After the forms are removed from concrete structures, the excavation shall be cleared of all trash and debris prior to backfilling. The fill shall be placed in horizontal layers not to exceed four (4) inches in thickness and compacted by hand tampers or other compaction equipment. At no

REFERENCE

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
ENGINEERING & WATERSHED
PLANNING UNIT
UPPER DARBY, PENNSYLVANIA

DRAWING NO.

ESNE-76

SHEET 2 OF 3

DATE JAN., 60

DATE 1-60

UNIT OF E. & W. P.

HEAD

APPROVED

CONSTRUCTION SPECIFICATIONS

Hathaway Steane Corp. Farm Pond
College Highway, Southwick
Hampden Co., Mass.

Plan No. MA-732
October 2, 1964

Number 2
EARTH FILL

time during the backfilling operation shall driven equipment be allowed to operate closer than four (4) feet, measured horizontally, to any portion of a structure. Under no circumstances shall the contractor drive equipment over any part of a concrete structure or pipe unless there is a compacted fill of twenty-four (24) inches or greater over the structure or pipe.

DATE 1-60

HEAD OF E. & W. P. UNIT

APPROVED *[Signature]*

REFERENCE

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
ENGINEERING & WATERSHED
PLANNING UNIT
UPPER DARBY, PENNSYLVANIA

DRAWING NO.

ESNE-76

SHEET 3 OF 3

DATE JAN., 60

CONSTRUCTION SPECIFICATIONS

Hathaway Steane Corp. Farm Pond
College Highway, Southwick
Hampden Co., Mass.

Plan No. MA-732
October 2, 1964

Number 3 PLAIN AND REINFORCED CONCRETE

- I. Proportioning the Mix. The concrete shall be mixed in the following proportions, measured either by direct weight or volume. The water-cement ratio shall be 5-1/2 to 6 U. S. gallons of water per 94-pound sack of cement. The proportions of ingredients for the trial mix shall be 1:2:3-1/2. The combination of aggregates may be adjusted to produce a plastic and workable mix that will not produce harshness in placing or honeycombing in the structure.
- II. Cement. Normal Portland cement shall conform to the latest A. S. T. M. Specifications C-150.
- III. Water. The water used in concrete shall be fresh, clean, and free of silt, sewage, oil, acid, alkali, salts, or organic matter (drinkable water).
- IV. Sand. Sand for concrete shall be clean, hard, strong, and durable and shall be well graded, with 100 percent passing a one-quarter-inch sieve.
- V. Coarse Aggregate. Coarse aggregate shall be clean, hard, strong and durable, and free from clay or dirt. It shall be well graded with a maximum size of 1-1/2 inches.
- VI. Mixing. The concrete ingredients shall be mixed in batch mixers until the mixture is homogenous and of uniform consistency. The mixing of each batch shall continue for not less than one and one-half minutes after all the ingredients, except the full amount of water, are in the mixer. The minimum mixing time is predicated on proper control of the speed of rotation of the mixer and of the introduction of the materials, including water, into the mixer. Water shall be added prior to, during, and following the mixer-charging operations. Excessive overmixing requiring the addition of water to preserve the required concrete consistency shall not be permitted. Truck mixing will be allowed provided that the use of this method shall cause no violation of any applicable provisions of the specifications given here.
- VII. Forms. The forms shall have sufficient strength and rigidity to hold the concrete and to withstand the necessary pressure, tamping, and vibration without deflection from the prescribed lines. They shall be mortar-tight and constructed so they can be removed without hammering or prying against the concrete.

The inside of forms shall be oiled with a non-staining mineral oil

REFERENCE

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
ENGINEERING & WATERSHED
PLANNING UNIT
UPPER DARBY, PENNSYLVANIA

DRAWING NO.
ESNE-77

SHEET 1 OF 2

DATE JAN., 60

APPROVED *[Signature]* DATE 1-60 HEAD OF E. & W.P. UNIT

CONSTRUCTION SPECIFICATIONS

Number 3 PLAIN AND REINFORCED CONCRETE

or thoroughly wetted before concrete is placed.

All wire ties and other devices used shall be cut off flush with the surface of the concrete after the forms are removed.

- VIII. Reinforcing steel shall be deformed bars of intermediate grade billet steel or rail steel conforming to A. S. T. M. Specifications A-15 and A-16, respectively, and shall be free of dirt, rust, scale, oil, paint, or other coatings. Steel shall be accurately placed and securely held in position by wiring and blocking.
- IX. Finishing. The surface of concrete finished against forms shall be smooth, free from projections, and filled thoroughly with mortar. Exposed, unformed surfaces of concrete shall be brought to a uniform surface and worked with suitable tools to a reasonably smooth wood-float or steel trowel finish. Excessive floating or trowelling of surfaces while the concrete is plastic will not be permitted.
- X. Protection and Curing. Exposed surfaces of concrete shall be protected from the direct rays of the sun for at least the first three (3) days. All concrete shall be kept continuously moist for at least ten (10) days after being placed. Moisture may be applied by spraying or sprinkling as necessary to prevent the concrete from drying. Concrete shall not be exposed to freezing during the curing period.
- XI. Placing Concrete. Concrete may not be placed at temperatures below 37° F. with the thermometer falling, or 34° F. with the thermometer rising.

APPROVED *[Signature]* HEAD OF E. & W.P. UNIT DATE 1-60

REFERENCE

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
ENGINEERING & WATERSHED
PLANNING UNIT
UPPER DARBY, PENNSYLVANIA

DRAWING NO.
ESNE-77
SHEET 2 OF 2
DATE JAN., 60

CONSTRUCTION SPECIFICATIONS

Number 4
PIPE CONDUITS
CORRUGATED METAL PIPE

I. Description. This item shall consist of furnishing and installing sections of corrugated metal pipe to provide a barrel and riser for a drop inlet, spillways, drain pipe, water pipe, or other pipe conduit placed under an earth fill. The pipe shall be the size and type specified.

II. Materials.

- a. Corrugated Metal Pipe and fixtures shall conform to the requirements of A. A. S. H. O. Specification M-36. The inside and outside of the pipe and fixtures shall be completely coated with asphalt cement to a minimum thickness of 0.04 inch measured at the crest of the corrugations. The asphalt cement used for the coating shall not be less than 99.5 percent soluble in carbon disulphide and shall adhere tenaciously to the metal, shall not chip off in handling, and shall protect the metal from deterioration.
- b. All pipe 18 inches in diameter and larger shall have double riveted seams.

III. Construction Methods.

- a. Trench. The width of the trench in which the pipe is placed shall be sufficient to permit thorough tamping of the backfill under the haunches and around the pipe. A minimum width of 2'-0" + the outside diameter of the pipe is to be maintained.
- b. Bedding. The pipe shall be bedded in an earth foundation of uniform density, shaped to fit the lower part of the pipe exterior for at least 10 percent of its height. Where rock is encountered, it shall be removed and replaced with suitable compacted earth to provide an earth cushion under the pipe of 8 inches. Where soft, spongy, or other unstable soil is encountered, all such unstable soil shall be removed and replaced with suitable earth compacted to provide adequate support.

IV. Laying Pipe. The pipe shall be placed with the inside circumferential laps pointing downstream and with the longitudinal laps at the sides. The joining of sections of pipe shall be done in a manner so as to secure a watertight joint. When using standard connecting bands, the 2 sections of pipe shall be placed in position and wrapped with 2 layers of heavy asphalt saturated

DATE 1-60

UNIT

E. & W.P.

OF

HEAD

APPROVED

By

Signature

Initials

DATE

1-60

REFERENCE

U. S DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
ENGINEERING & WATERSHED
PLANNING UNIT
UPPER DARBY, PENNSYLVANIA

DRAWING NO.

ESNE-78

SHEET 1 OF 2

DATE JAN., 60

CONSTRUCTION SPECIFICATIONS

Number 4 PIPE CONDUITS CORRUGATED METAL PIPE

roofing felt. The connecting band shall then be placed over the wrapping and securely clamped, with the bolts being placed at the top. When watertight bands are used for joining the sections of pipe, the laps shall be made at the top of the pipe and the rods so placed that the tightening lugs are also at the top. The whole line of pipe shall be true to line and grade, and any deviation shall be corrected before backfilling.

- V. Backfilling. Material used for backfilling adjacent to the pipe shall be impervious soil free of large stones, frozen lumps, or debris. It shall be deposited alternately on opposite sides of the pipe in 4-inch layers and thoroughly tamped. Care shall be taken to provide good compaction under the haunches of the pipe. Equipment shall not be driven over any part of the pipe unless there is a compacted fill of 24 inches or greater over the top of the pipe.
- VI. Anti-Seep Collars. Anti-seep collars shall be constructed of the materials specified to the dimensions and at the locations shown on the drawings.
- VII. Junctions. Junctions of the conduit with the riser for drop inlets shall be made as shown on the drawings. Valves and other fixtures shall be placed as shown on the drawings.

DATE 1-60

APPROVED *[Signature]* HEAD OF E. & W. P. UNIT

REFERENCE

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
ENGINEERING & WATERSHED
PLANNING UNIT
UPPER DARBY, PENNSYLVANIA

DRAWING NO.

ESNE-78

SHEET 2 OF 2

DATE JAN., 60

CONSTRUCTION SPECIFICATIONS

Hathaway Steane Corp. Farm Pond
College Highway, Southwick
Hampden Co., Mass.

Plan No. MA-732
October 2, 1964

Number 7 ROCK RIPRAP

- I. SCOPE. This specification covers the foundation preparation for riprap and the placing of rock riprap.
- II. MATERIALS. The riprap stone shall be durable and of suitable quality to assure permanence, and shall be reasonably well graded from a minimum of one inch diameter to a maximum size equal to the thickness of the riprap shown on the drawings.
- III. FOUNDATION PREPARATION. Earth surfaces on which the rock riprap is to be placed shall be trimmed and graded to the lines or sections shown on the drawings. Surfaces which are below grade shall be brought to grade by filling with well compacted materials similar to the adjacent materials.
- IV. PLACEMENT. The riprap shall be placed to the full course thickness shown on the drawings and in such a manner that will prevent serious displacement of the underlying material. The rock shall be placed so that the larger and heavier rocks are located at the base of the slope. The rock may be placed by any means, provided free fall does not exceed five (5) feet. The finished surface of the riprap will be fairly smooth and to the lines and grades shown on the drawings. Spaces between the larger rocks will be filled with smaller rocks of acceptable size so that no opening exceeding three (3) inches in diameter will remain.

When hand-placed riprap is called for on the drawings, the rock shall be placed by hand in such a manner that adjacent rocks are in close contact and have the greatest dimension across the slope.

DATE 1-60

HEAD OF E. & W.P. UNIT

APPROVED *[Signature]*

REFERENCE

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
ENGINEERING & WATERSHED
PLANNING UNIT
UPPER DARBY, PENNSYLVANIA

DRAWING NO.

ESNE-81

SHEET 1 OF 1

DATE JAN., 60

APRIL 15 1960

SHEET No. 4

METAL DIAPHRAGM

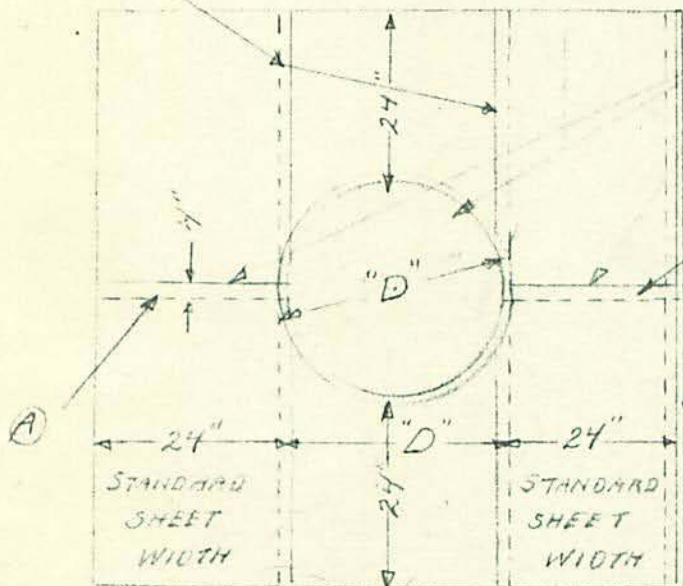
N.E. METAL CONVERT CO.
376 BOYLSTON ST.
BOSTON, MASS
OR
PALMER, MASS

DESIGN FOR
U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

DESIGN FOR METAL PIPE 8" THRU 24" DIAMETER

LAP AND STITCH WELD THESE LAPS

MADE FROM 16 GAGE CORR. GALV. SHEETS,
UNLESS OTHERWISE SHOWN ON PLANS
SEAL ALL FIELD JOINTS SEE NOTE BELOW *



COMPLETE UNIT TO BE GIVEN ONE
SHOP COAT OF AN APPROVED
TAR BASE PAINT

FABRICATION

IF DESIRED DIAPHRAGM CAN BE
SHOP ASSEMBLED AND DELIVERED
AS A COMPLETE UNIT FOR BREAK-
DOWN IN FIELD

2" X 2" X 3/16" FULL LENGTH ANGLE
(BLACK) PUNCHED FOR FIELD
BOLTING TO BOTH VERTICAL SIDES
WILL BE FURNISHED IF ORDERED

ELEVATION

"D" OUTSIDE DIAMETER
IN VALLEY OF CORRUGATION

"A" HOLES MATCH PUNCHED IN
SHOP TO PERMIT FIELD BOLTING
GALV. BOLTS AND NUTS FURNISHED

THE TWO HALF DIAPHRAGMS
CAN BE SHOP WELDED TO 1/2
ROUND COLLARS IF DESIRED
COLLAR AND DIAPHRAGM
TO BE FIELD BOLTED TOGETHER

* 1 GALLON OF WEBTEX ROOF CEMENT FURNISHED
WITH EACH DIAPHRAGM.

TO BE USED TO SEAL JOINT AT (A) WHEN PLACED AND
TO SEAL AROUND OUTSIDE OF PIPE AFTER DIAPHRAGM
IS IN PLACE.

COST OF DIAPHRAGM

DESIGN NUMBER	"D" INCHES	WITHOUT SIDE ANGLES	WITH SIDE ANGLES	ADD TO COSTS FOR WELDED TO COLLAR. COST INC 12" WIDE COLLAR
1	8	\$29.58	\$39.59	\$8.38
2	10	31.86	41.87	9.37
3	12	32.57	42.68	10.42
4	15	37.63	48.73	12.00
5	18	38.52	49.58	13.51
6	21	42.71	54.65	15.63
7	24	44.21	56.14	17.78

CD Southwick
October 22, 1964

The Hon. the Board of County Commissioners
52 State Street
Springfield, Massachusetts

Gentlemen:

I have received plans and specifications of a proposed dam to be constructed by the Hathaway Steane Corp. in the Town of Southwick. The location of the proposed dam is on the upper portion of the watershed of Slab Brook at a point westerly of College Highway, Route 10 and Route 202, a short distance south of the location where Sunnyside Ranch Road joins the State Highway.

I have examined the site of the proposed dam in the field with Mr. Gallant, of Hathaway Steane Corp., and have reviewed the drawings and the specifications as filed.

The drawings consist of a data sheet, two sheets of detail showing the proposed inlet to the tube spillway thru the dam, and the proposed diaphragm or seepage fin, so-called, to be installed on the spillway tube thru the embankment of the dam for the purpose of preventing seepage along the outside of the tube. The general drawings of the dam itself together with spillway construction consist of three large sheets designated Drawing #MA-732 and dated October 2, 1964. The three large drawings are designated Sheet 2 of 4, Sheet 3 of 4 and Sheet 4 of 4. Sheet 1 of 4 is the data sheet containing basic information of the proposed construction and design details.

A printed booklet of specifications is included with the drawings and data sheet and is also dated October 2, 1964. The specification booklet has a title sheet and sections having to do with site preparation, earth fill, plain and reinforced concrete, pipe conduits and rock riprap. The dam as proposed will be an earth embankment structure built with local soil. The embankment will be about 12 ft. in height from the bed of the brook to the top of the structure. The depth of water to be impounded at the dam will be 8-1/2 ft.

Two spillways are provided as per the drawings. One spillway will be a corrugated iron vertical shaft structure with an 18" corrugated pipe tube thru the embankment. The inlet or vertical shaft will be of corrugated iron construction and will consist of a vertical half section of pipe with an arrangement for the insertion of stoplogs to vary the height of the pond and to provide drawdown facilities. This vertical shaft will be built upon a concrete foundation and at the bottom of the shaft an 18" corrugated pipe will extend at right angles thru the dam embankment. Two diaphragms or seepage fins, so-called, will be installed on the pipeline. One at about the centerline of the embankment and the other at a point about half-way between the first diaphragm and the vertical shaft spillway.

The discharge of the spillway pipe will be in a rock lined stilling basin to prevent erosion of the ground at the point of discharge. A concrete supporting wall will be constructed in the embankment for the purpose of supporting the end of the pipeline and preventing any scour, should failure of the stone lined stilling basin occur.

The elevation of the top of the vertical shaft spillway is shown on the drawings as 100.5.

On Sheet 3 of 4, the plan view of the proposed construction, a swale spillway of the around-the-end type is shown. This swale spillway will be a channel 40 ft. in width and will be excavated in natural soil. The elevation of the control section or crest of this spillway will be 101.5. Thus, the emergency swale spillway will not begin to operate until the water level in storage is one foot above the tube spillway. Consequently, the tube spillway will be the prime spillway and will be in use to about its capacity before the emergency spillway functions.

The elevation of the top of the embankment is 104.0. Thus, the embankment will be 3.5 ft. higher than the swale spillway crest.

Based upon a 50-year storm, that is a storm that will occur only once in 50-years, water elevation in the spillway will never be above elevation 103.1. Consequently, under design flood conditions, there will still be nine-tenths of a foot of freeboard at the dam.

Considering the small pond involved and the fact that there will be little or no wave action, this freeboard of slightly less than one foot is adequate.

The swale spillway will pass around the right end of the embankment construction but will be so located that once in 50 years flow thru this spillway

will be in contact with a small portion of the end of the embankment construction.

Based upon the elevation of natural ground, only about 6" of the embankment height will be in contact once in 50 years with flood flows. Provided the embankment is maintained with a good cover of sod, this condition will not be detrimental to the structure.

No cut-off wall or keyway construction is planned at the dam. Based upon my examination of the soil in the field, the natural ground is quite impervious and there is no necessity for a cut-off trench or seepage key. The work required in the field to provide for a good tight foundation will simply entail the roughing up of the existing ground and the placing thereon of the borrow material that will be used to form the embankment. As the material is laid down on the existing roughed up ground, the embankment can be rolled in the usual manner to form a good impervious foundation.

The drainage area at the site of the proposed dam is quite small being only 82 acres. The design runoff has been computed at 198 cfs while the capacity of the proposed pond at normal spillway elevation is 1,440,000 gallons.

The capacity of the tube spillway and spillway shaft is 19.4 cfs.

The specifications provide for the clearing and stripping of the area of all objectionable material. They also provide for the proper compaction of the earth embankment and the proper bedding and backfill for the conduit spillway pipeline.

The requirements for concrete construction as set forth in the specifications are typical and satisfactory. Pipe materials and construction methods for the corrugated iron vertical shaft spillway inlet and the conduit pipe thru the dam will provide for a workmanlike installation. The specifications for the rock riprap which will form the stilling basin are good.

The only phase of the work that is not covered in the plans and specifications is the surface treatment of the embankment and the swale spillway. The owner should provide a cover of loam over the entire embankment except for that portion on the upstream face that will normally be under water. The loam should be fertilized and seeded so that a good growth of turf will develop.

In the emergency swale spillway the surfaces of the spillway including the bottom and two sides should also be loam covered, seeded and fertilized.

Care should be taken, particularly in the swale spillway, to obtain a good growth of turf.

On the assumption that the proposed dam and related facilities will be constructed in accordance with the various drawings and specifications filed and based upon the condition that the owner will provide loam, seed and fertilizer as recommended hereinbefore to promote a good growth of turf on the embankment and in the swale spillway, it is recommended that your Honorable Board approve the plans and specifications as filed.

We are returning to you enclosed one complete set of all drawings and the specifications.

Respectfully submitted

GHM/cmb

George H. McDonnell
County Hydraulic Engineer

GEORGE H. McDONNELL
PHILIP W. SHERIDAN
EDWARD J. BAYON

**TIGHE
& BOND**

CONSULTING ENGINEERS

CIVIL, SANITARY AND ELECTRICAL ENGINEERING
INVESTIGATIONS, REPORTS, PLANS AND SPECIFICATIONS
SUPERVISION OF CONSTRUCTION AND OPERATION

BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991
CD Southwick
November 18, 1964

The Hon. the Board of County Commissioners
52 State Street
Springfield, Massachusetts

Gentlemen:

Enclosed herewith please find a copy of a communication sent to the Hathaway Steane Corp. regarding an inspection of a small farm pond dam now under construction on their property. The contents of the communication are self-explanatory.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/mg

Enc.

**CD Southwick
November 18, 1964**

**Hathaway-Steane Corp.
Farm Office
College Highway
Southwick, Massachusetts**

Gentlemen:

On Friday, November 13, 1964, the undersigned inspected the new farm pond dam being constructed on your property in accordance with plans and specifications filed with the Commissioners of Hampden County, Mass. On the day of inspection, work had progressed to a point where the embankment material was in place, the tube spillway had been constructed and the swale spillway around the left of the embankment had been shaped.

It was noted that the slopes of the embankment were quite soft, particularly at the toe on the downstream slope of the embankment and in general along the entire upstream face. These areas of the embankment should be well compacted and failure to provide proper compaction could result in failures of the embankment by the occurrence of slides. Faces of embankments should be pounded and compacted in the same manner as the main portion of the embankment and this is usually accomplished by having the compacting equipment run on the embankment slopes.

Please be certain that before the Contractor completes all work on the project that the embankment is properly compacted in the areas pointed out hereinbefore.

Very truly yours,

**George H. McDonnell
County Hydraulic Engineer**

GHM/mg

CD Southwick
May 9, 1966

The Hon. the Board of County Commissioners
52 State Street
Springfield, Massachusetts

Gentlemen:

Reference is made to my communication of May 2, 1966, Item K, the new dam owned by Hathaway-Steane Corp. in the Town of Southwick. In my communication I pointed out that the dam was to be inspected in 1966 and, if found satisfactory, a recommendation would be made relative to its acceptance. The enclosed letter-report is self-explanatory.

Very truly yours,

George H. McDonnell
County Hydraulic Engineer

GHM/mbf

**CD Southwick
May 9, 1966**

**The Hon. the Board of County Commissioners
52 State Street
Springfield, Massachusetts**

Gentlemen:

Reference is made to my communication of May 2, 1966, Item K, the new dam owned by Hathaway-Steane Corp. in the Town of Southwick. In my communication I pointed out that the dam was to be inspected in 1966 and, if found satisfactory, a recommendation would be made relative to its acceptance. The enclosed letter-report is self-explanatory.

Very truly yours,

**George H. McDonnell
County Hydraulic Engineer**

GHM/mbf

**CD Southwick
May 9, 1966**

**The Hon. the Board of County Commissioners
52 State Street
Springfield, Massachusetts**

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Reference is made to my communication of May 2, 1966, Item K, the new dam owned by Hathaway-Steane Corp. in the Town of Southwick. In my communication I pointed out that the dam was to be inspected in 1966 and, if found satisfactory, a recommendation would be made relative to its acceptance. The enclosed letter-report is self-explanatory.

Very truly yours,

**George H. McDonnell
County Hydraulic Engineer**

GHM/mbf

CD Southwick
May 9, 1966

The Hon. the Board of County Commissioners
52 State Street
Springfield, Massachusetts

Gentlemen:

Reference is made to the new dam of Hathaway-Steane Corp. in Southwick. The dam is known as Farm Pond and is situated on the west side of College Highway, Route 202.

Plans and specifications of the proposed construction were examined by the undersigned and a letter-report dated October 22, 1964 was sent to your Board.

Inspections have been made of the dam during various stages of construction and as of the most recent inspection made Friday, May 6, 1966, the structure was found to be satisfactory with the exception of minor maintenance.

In view of the fact that the dam has been constructed in accordance with the filed plans and specifications, it is recommended that the dam be accepted by the County.

Respectfully submitted,

George H. McDonnell
County Hydraulic Engineer

GHM/mbf

CD Southwick
May 9, 1966

The Hon. the Board of County Commissioners
52 State Street
Springfield, Massachusetts

Gentlemen:

Reference is made to the new dam of Hathaway-Steane Corp. in Southwick. The dam is known as Farm Pond and is situated on the west side of College Highway, Route 202.

Plans and specifications of the proposed construction were examined by the undersigned and a letter-report dated October 22, 1964 was sent to your Board.

Inspections have been made of the dam during various stages of construction and as of the most recent inspection made Friday, May 6, 1966, the structure was found to be satisfactory with the exception of minor maintenance.

In view of the fact that the dam has been constructed in accordance with the filed plans and specifications, it is recommended that the dam be accepted by the County.

Respectfully submitted,

George H. McDonnell
County Hydraulic Engineer

GHM/mbf

May 11, 1966

Hathaway & Steane Corp.
College Highway
Southwick, Massachusetts

Gentlemen:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your small dam on Slab Brook adjacent to Tannery Road in Southwick has been inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

"The upstream face and the top of the embankment were found to be satisfactory. The downstream face of the embankment should be cleared of all brush and a cavity formed in the downstream face at about the center section of the dam should be repaired by being filled in with well compacted soil. The toe area of the dam was okay. The spillway tube and inlet structure were found to be satisfactory and water level in storage was at the elevation of the top stoplog."

Other dams on your property were found to be satisfactory. There is some work needed in connection with the new Farm Pond Dam located off of College Highway. Though this new dam has been recommended for acceptance by the County Hydraulic Engineer, he has pointed out that the following work should be completed:

- A. A good growth of turf should be promoted on both sloping faces of the dam embankment.
- B. A good growth of turf should be promoted in the emergency overflow spillway to the left of the embankment.
- C. A gravel surface should be applied to the top of the dam being used for roadway purposes. The gravel should be about 12" thick and be well compacted.

D. Natural ground at the toe of the dam is quite soft and if this condition persists, stone fill should be dumped on the soft area for stabilization and weighting purposes.

Any further information desired in connection with this matter will be made available to you upon request.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

May 22, 1968

Hathaway & Steane Corporation
College Highway
Southwick, Massachusetts

Gentlemen:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your three dams, two on Slab Brook and one adjacent to golf course property, on your property in Southwick, have been recently inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

"Dam #1

The embankment forming this dam was found to be satisfactory. All brush growth should be discouraged and kept cut. Particular attention should be paid to the downstream slope of the embankment and the area in the vicinity of the outlet of the discharge tube. At the time of inspection, water level was about 12" below the grade of the upper stoplog.

The fifth stoplog from the top appears to be quite weak and is bending downward as a result of the hydraulic load. This stoplog should be temporarily strengthened with a brace to prevent the possibility of a failure. Later on in the year, following the irrigation season, this stoplog should be removed and replaced with a proper timber.

The toe area of the embankment was found to be satisfactory. The area is wet, but this is the result of back-water from Dam #2 downstream.

The spillway inlet box and the spillway tube itself were found to be o. k.

Dam #2

This dam is located on Slab Brook just upstream from Tannery Road.

The embankment at this dam has been greatly improved since the time of the last inspection. The sod and vegetation cover is the best that has been noted in a number of years. The toe area of the embankment was in good condition. There is some small brush growth on the downstream slope and at the spillway tube outlet. This brush growth should be cut down and future growth discouraged.

Water level in storage was at the crest of the upper stoplog in the spillway. The concrete spillway inlet was noted to be o. k.

In the opinion of the undersigned, this dam is safe and is in good condition.

Dam #3

The body of water formed by this dam is adjacent to the golf course property near the northerly boundary line of Hathaway & Steane Co. property. Since the pond formed at this location is almost entirely in excavation and the dam is simply a dike along the right side of the brook, it is doubtful if this structure comes under County jurisdiction. The outlet is nothing more than the natural brook bed as it discharges onto golf course property. Water level is not actually raised above the natural bed of the brook course.

Conditions at this location were found to be satisfactory and the stored water does not endanger persons and property downstream. Normally it would be recommended that this location be dropped from County records. Since the site is a very short distance from Dam #1, the site is inspected during the time of the routine inspections to be certain that conditions at the dike are not altered so as to store water above the natural elevation of the brook course. "

The maintenance work and improvements as outlined in the report of the County Hydraulic Engineer should be done this summer.

Dam #2

This dam is located on Slab Brook just upstream from Tannery Road.

The embankment at this dam has been greatly improved since the time of the last inspection. The sod and vegetation cover is the best that has been noted in a number of years. The toe area of the embankment was in good condition. There is some small brush growth on the downstream slope and at the spillway tube outlet. This brush growth should be cut down and future growth discouraged.

Water level in storage was at the crest of the upper stoplog in the spillway. The concrete spillway inlet was noted to be o. k.

In the opinion of the undersigned, this dam is safe and is in good condition.

Dam #3

The body of water formed by this dam is adjacent to the golf course property near the northerly boundary line of Hathaway & Steane Co. property. Since the pond formed at this location is almost entirely in excavation and the dam is simply a dike along the right side of the brook, it is doubtful if this structure comes under County jurisdiction. The outlet is nothing more than the natural brook bed as it discharges onto golf course property. Water level is not actually raised above the natural bed of the brook course.

Conditions at this location were found to be satisfactory and the stored water does not endanger persons and property downstream. Normally it would be recommended that this location be dropped from County records. Since the site is a very short distance from Dam #1, the site is inspected during the time of the routine inspections to be certain that conditions at the dike are not altered so as to store water above the natural elevation of the brook course. "

The maintenance work and improvements as outlined in the report of the County Hydraulic Engineer should be done this summer.

If you have any question in connection with the recommendations or if you wish any further information on these matters, please call or write our Board.

The new Farm Pond Dam behind the farmhouse was also inspected and conditions here were noted to be satisfactory. The various recommendations contained in the previous letters relative to this dam have all been followed in a satisfactory manner.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

GEORGE H. McDONNELL
PHILIP W. SHERIDAN
EDWARD J. BAYON

**TIGHE
& BOND**

CONSULTING ENGINEERS

CIVIL, SANITARY AND ELECTRICAL ENGINEERING
INVESTIGATIONS, REPORTS, PLANS AND SPECIFICATIONS
SUPERVISION OF CONSTRUCTION AND OPERATION

BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991

CD Southwick
December 30, 1969

The Honorable the Board of County Commissioners
52 State Street
Springfield, Massachusetts

Gentlemen:

Re: Southwick Repeat Inspection

On Monday, December 29, 1969, the undersigned inspected Dam No. 2 of the Hathaway & Steane Corporation located on Slab Brook and just upstream from Tannery Road. The recommended work has apparently been completed at this dam since the undersigned could observe little or no leakage within the spillway tube as previously reported. The pond was full to flashboard crest elevation. Deep snow cover prevented an examination of the embankment. However, with no apparent leakage taking place within the tube, suitable corrective measures must have been taken. A more detailed inspection will be made during routine inspections of 1970.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/amd

GEORGE H. McDONNELL
PHILIP W. SHERIDAN
EDWARD J. BAYON

**TIGHE
& BOND**

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BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991

CD Southwick
December 30, 1969

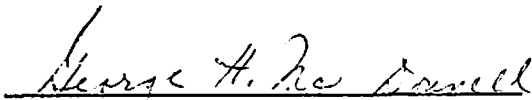
The Honorable the Board of County Commissioners
52 State Street
Springfield, Massachusetts

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Re: Southwick Repeat Inspection

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Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/amd

GEORGE H. McDONNELL
PHILIP W. SHERIDAN
EDWARD J. BAYON

**TIGHE
& BOND**

CONSULTING ENGINEERS

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HOLYOKE, MASSACHUSETTS
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CD Southwick
December 30, 1969

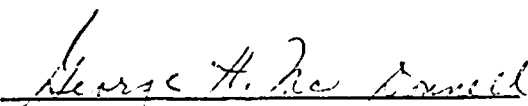
The Honorable the Board of County Commissioners
52 State Street
Springfield, Massachusetts

Gentlemen:

Re: Southwick Repeat Inspection

On Monday, December 29, 1969, the undersigned inspected Dam No. 2 of the Hathaway & Steane Corporation located on Slab Brook and just upstream from Tannery Road. The recommended work has apparently been completed at this dam since the undersigned could observe little or no leakage within the spillway tube as previously reported. The pond was full to flashboard crest elevation. Deep snow cover prevented an examination of the embankment. However, with no apparent leakage taking place within the tube, suitable corrective measures must have been taken. A more detailed inspection will be made during routine inspections of 1970.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/amd

THE HATHEWAY-STEANE CORPORATION

P. O. BOX 92

SUFFIELD, CONNECTICUT 06078

Sutcliffe
June 17, 1970

Commonwealth of Massachusetts
County of Hampden
Office of the County Commissioners
52 State Street
Springfield, Massachusetts

Gentlemen:

With further reference to your letter of November 26, 1969 and our reply of January 9, 1970, we wish to advise that all the recommendations made in your original letter have been taken care of in the manner you suggested during the Spring of 1970.

Again let us state that we appreciate the advice that you have given us and the recommendations offered, and we trust that the foregoing will assure you of our continuing desire to keep these facilities in the best possible condition.

Very truly yours,

Rostek
F. H. Rostek
Office Manager

FHR:FAB

6/17/70 Cpy mailed to Roger M. Powell

THE HATHEWAY-STEANE CORPORATION

P. O. BOX 854

HARTFORD, CONNECTICUT 06101

January 9, 1970

Commonwealth of Massachusetts
County of Hampden
Office of the County Commissioners
52 State Street
Springfield, Massachusetts

Gentlemen:

We wish to thank you and acknowledge receipt of your letter of November 26, 1969 pertaining to our three (3) farm pond dams in Southwick, Massachusetts.

With regard to Dam #2 (on Slab Brook), the level of the pond has been lowered as suggested in your letter. We expect to make substantial repairs to this pond dam just as soon as weather will permit, and when this has been done we will confirm it to you.

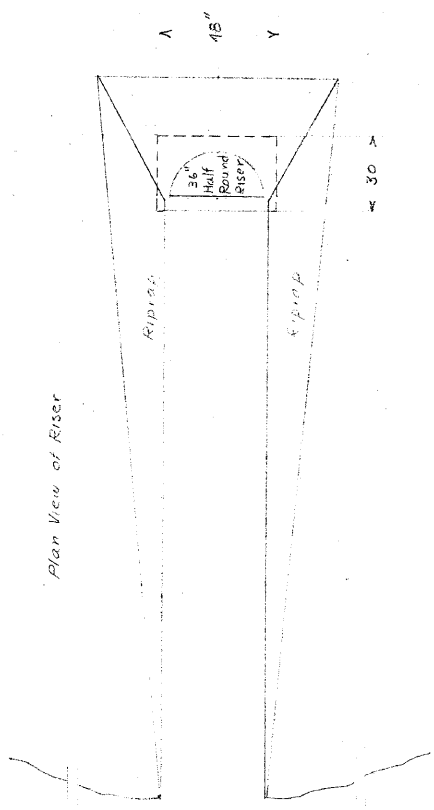
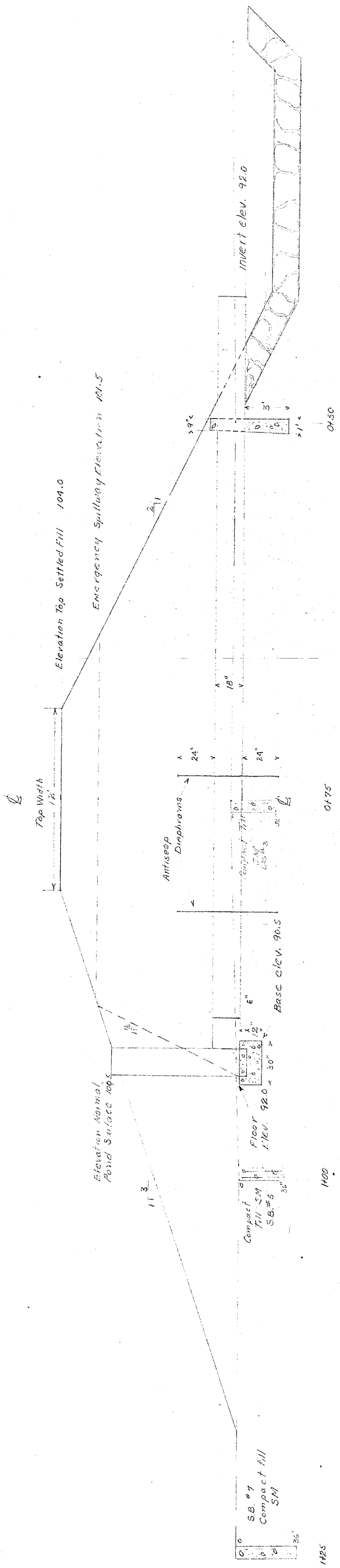
We appreciate the advice and recommendations offered in your letter and feel sure that you understand that we will take all steps necessary to keep our farm dams in good repair.

Very truly yours,


F. H. Rostek
Office Manager

FHR:FAB

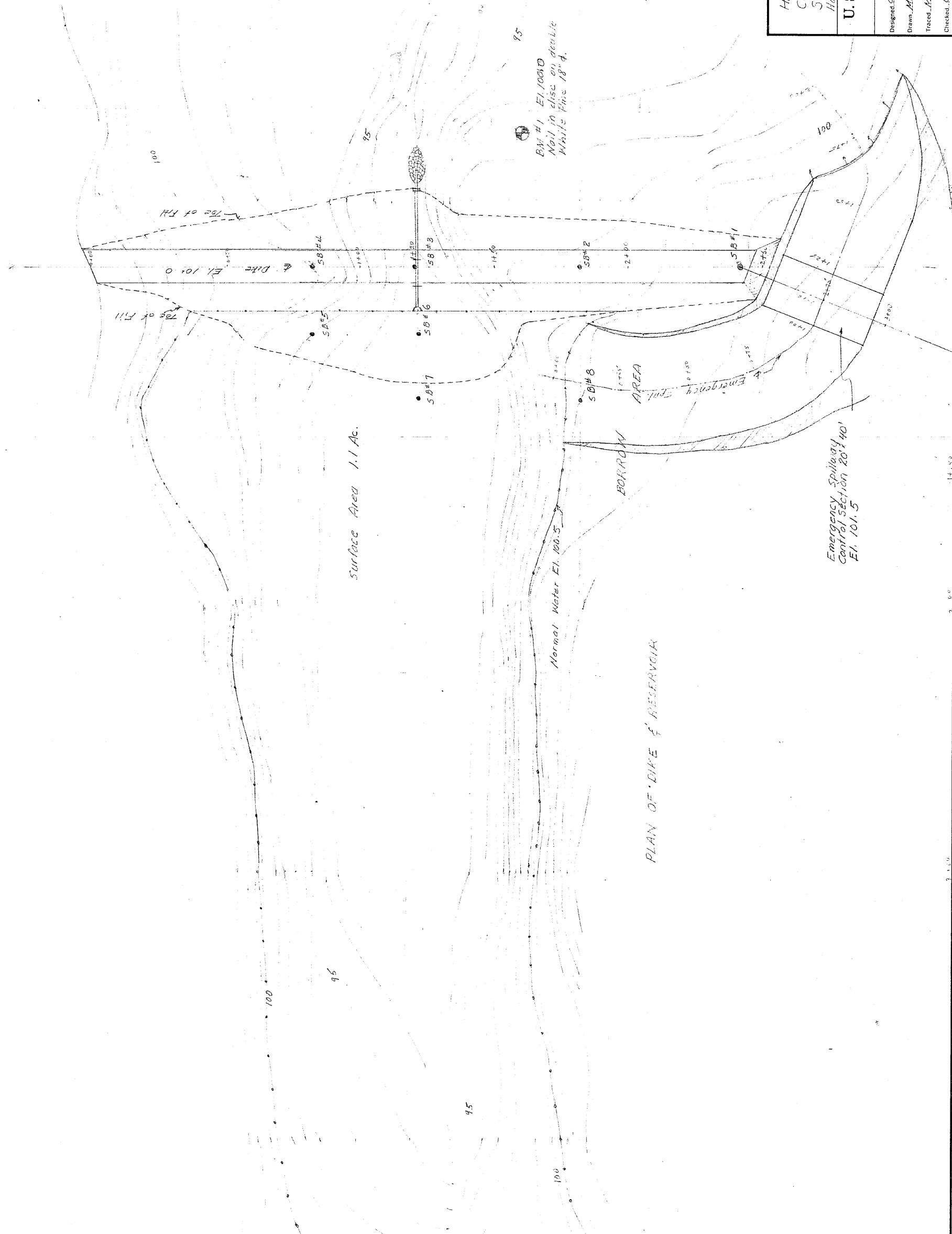
Standard New England Culvert Co.
 Half Round 36" BCCM Riser
 18" BCCM PIPE
 Antiseep Diaphragms BCCM (Des #5) 48 2



Scale 1" = 4'

Hathaway Stearns Corp. Farm Pond
 College Highway,
 Southwick, Hampden County, Mass.
 Hampden Conservation District
**U. S. DEPARTMENT OF AGRICULTURE
 SOIL CONSERVATION SERVICE**

Designed	C.B.C. & M.H.H.	Date	10/2/60	Approved by	M.H.H.
Drawn	C.B.C.	Date	10/2/60	Title	Sheet
Traced	C.B.C.	Date	10/2/60	Sheet	No. 2
Checked	M.H.H.	Date	10/2/60	of	4
				Drawing No.	MA 732



Hathaway Stearns Corp. Farm Pond College Highway, Southwick, Hampden Co., Mass. Hampden Conservation District West Field.	
U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	
Designed C.B.C.	Date 4/1/54
Drawn M.A.H.	Title 4/1/54
Traced M.A.H.	Sheet 4
Checked C.B.C.	Drawing No. MA-732

Helliwell Dam



1952 Southwick

Located adjacent to property on Vining Hill Road, on Pearl Brook.

City/Town	Southwick
Dam	Helliwell Dam
Name	Helliwell
Streets	Vining Hill Road
Water	Pearl Brook

September 17, 1952

Mr. S. Helliwell
Vining Hill Road
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Chapter 253, Section 45 et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your dam located adjacent to your home on Pearl Brook in Southwick, has been recently inspected by our Engineer, and your attention is called to the following conditions noted and recommendations made by him:

"It is apparent that the dam has been topped, probably by very high rates of run-off. Spillway boards should be removed from the spillway channel each fall and not replaced until after the spring thaw and rains. There is a leak under the dam at the base of the spillway section. One place where the leakage enters the dam can be seen when the pond is drawn down. Excavation of this area and the removal of muck by hand tools and then the flushing of gravel into the leak should reduce this leakage."

Any further information concerning this matter which you may desire will be furnished by this office upon request.

Very truly yours,

COUNTY COMMISSIONERS

By William F. Stapleton
Chairman

Thomas F. Sullivan

Francis M. O'Keefe

Acting County
Commissioner

*Helliwell Sam
Southwick*

Feb. 5, 1958

Mr. Sidney Helliwell
Vining Hill Road
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition, and safety of the dams of Hampden County, you are hereby advised that your dam located on your property adjacent to your house on Vining Hill Road has been recently inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

"This dam was found to be in relatively good condition. However, one stop log should be removed from the spillway until after the spring runoff. This will increase the capacity of the spillway and help in preventing over-topping of the dam in case of heavy runoff."

Any further information concerning this matter which you may desire will be furnished by this office upon request.

Very truly yours,

HAMPDEN COUNTY COMMISSIONERS

December 16, 1959

Mr. Sidney Helliwell
Vining Hill Rd.
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Chapter 253, Section 45, et seq., of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your dam located adjacent to your home on Vining Hill Rd. in Southwick, has been inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

"The dam is in satisfactory condition and the spillway is OK. Some seepage occurs through the face of the dam at the right side but this is not important. Downstream of the dam at the right bank, the stone masonry wall is starting to collapse. This will not endanger the dam since the structure is independent of this portion of the stream bank. However, it might be well to notify the owner so that repairs could be made if he so desired."

Any further information concerning this matter which you may desire, will be furnished by this office upon request.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

Kimball Dam



1962 Southwick

Dam located off Loomis Street - Southwick Fire Department to maintain the source of water as note dated 7-19-1968.

City/Town	Southwick
Dam	Kimball Dam
Name	KenPac Service
Name	Kimball Container Company
Name	Kimball, Irving
Streets	Loomis Street

Southwick

Oct. 31, 1962

Mr. Irving Kimball
c/o KenPac Service
So. Loomis Street
Southwick, Mass.

Dear Sir:

It is the understanding of our Board that you have purchased property from Dr. Arthur J. Logie, situated on So. Loomis St., in Southwick and containing a small dam, as well as a pond.

In accordance with the provisions of Chapt. 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your dam, situated just westerly of So. Loomis Street in Southwick and downstream from the dam owned by Dr. Logie has been inspected by our engineer and your attention is called to the following conditions noted and recommendations made by him.

" The embankment at this dam should be cleared of all brush and small tree growth. A good growth of turf should be promoted on the dam. The spillway culvert thru the embankment of the dam should be cleared of all debris.

The capacity of the spillway at this dam is not large enough to serve the drainage area involved. As pointed out in previous years, the spillway capacity should be increased, either by enlarging the existing spillway or constructing a suitably large swale spillway around the end of the dam on natural ground."

Any information concerning this matter which you may desire will be furnished by this office upon request.

Very truly yours

BOARD OF COUNTY COMMISSIONERS

GEORGE H. McDONNELL
PHILIP W. SHERIDAN
EDWARD J. BAYON

TIGHE & BOND

CONSULTING ENGINEERS

CIVIL, SANITARY AND ELECTRICAL ENGINEERING
INVESTIGATIONS, REPORTS, PLANS AND SPECIFICATIONS
SUPERVISION OF CONSTRUCTION AND OPERATION

BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991

CD Southwick
Oct. 25, 1962.

The Hon. the Board of County Commissioners
Hampden County Court House
37 Elm Street
Springfield, Mass.

Gentlemen:

In connection with the communication received by your Board from Dr. Arthur J. Logie, pertaining to the fact that he has sold his Lower Dam to Mr. Irving Kimball, I have learned from Dr. Logie that Mr. Kimball can be reached at KenPac Service on So. Loomis St., in Southwick.

We have prepared a new communication addressed to Mr. Kimball and enclose the original and one copy for your review. If you concur in its contents, the communication could be signed and forwarded.

Very truly yours

GHM/cmb
encs.


George H. McDonnell
County Hydraulic Engineer

CD Southwick
Oct. 25, 1962.

The Hon. the Board of County Commissioners
Hampden County Court House
37 Elm Street
Springfield, Mass.

Gentlemen:

In connection with the communication received by your Board from Dr. Arthur J. Logie, pertaining to the fact that he has sold his Lower Dam to Mr. Irving Kimball, I have learned from Dr. Logie that Mr. Kimball can be reached at KenPac Service on So. Loomis St., in Southwick.

We have prepared a new communication addressed to Mr. Kimball and enclose the original and one copy for your review. If you concur in its contents, the communication could be signed and forwarded.

Very truly yours

GHM/cmb
encs.

George H. McDonnell
County Hydraulic Engineer

October 30, 1963

Mr. Basil Tysz
c/o Hathaway & Steane Corp.,
College Highway
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of dams of Hampden County, you are hereby advised that your dam located in the Town of Southwick on Slab Brook and easterly of the NY, NH & H railroad tracks, has been recently inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

" Brush on the embankment, particularly the upstream and downstream face should all be cut down. Sticks and boards in the spillway inlet should be removed to prevent plugging of the spillway facility. "

In order that your dam can be properly inspected and maintained, brush growth should be kept cut down. A good growth of turf should be promoted on the dam embankment. The spillway inlet structure and spillway tube should be cleaned from time to time to prevent the accumulation of any sticks, debris, boards, etc. The presence of these materials will reduce the spillway capacity.

If you have any question in connection with the recommendations contained herein, please call or write our Board.

Very truly yours

BOARD OF COUNTY COMMISSIONERS

October 21, 1964

Mr. Irving Kimball
c/o Ken Pac Service
South Loomis
Southwick, Massachusetts

Dear Sir:

Two years ago we wrote to you regarding the condition of the small dam on Loomis Street in Southwick that was purchased by you from Dr. Arthur Logie. At the time of the inspection of the dam this past month, it was noted that the plant building adjacent to the dam appeared closed and there seemed to be no sign of activity in the general area. On the assumption that you still own the dam, we are writing to you to repeat the recommendations made in 1962 wherein the spillway capacity of the dam should be increased to protect the embankment in time of flood flow. This capacity could be obtained either by enlarging the existing spillway, by constructing another major spillway thru the dam embankment itself, or by building a suitably lined swale spillway in natural ground around the end of the dam.

If no active use is to be made of the dam, it might be best to open a breach thru the structure and prevent the ponding of water.

If by chance ownership of the dam has changed again, will you kindly so notify our Board.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

May 11, 1966

Mr. Irving Kimball
c/o Ken Pac Service
South Loomis Street
Southwick, Massachusetts

Dear Sir:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your dam situated off Loomis Street in Southwick has been inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

"Brush growth is becoming quite thick on the earth embankment of this dam. The brush should be cut down and a good growth of turf should be developed over the entire surface of the earth embankment. Logs and debris lodged in the small spillway channel should be removed and the spillway opening kept cleared. The owner of the dam should provide improved and increased spillway capacity at this small dam. No toe seepage was noted along the downstream edge of the embankment. "

Any further information desired in connection with this matter will be made available to you upon request.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

XXXXXXXXXX
52 State St.

June 3, 1966

Mr. George H. McDonnell
Tighe & Bond, Consulting Engineers
Bowers and Pequot Streets
Holyoke, Massachusetts

Dear Mr. McDonnell:

With reference to letter of May 11th to Mr. Irving Kimball relative to the dam owned by him and located off Loomis St. in Southwick, we copy below a letter received from him which is self-explanatory. This letter was mailed from Kimball Container Company, CAN-PAK SERVICE, INC., Feeding Hills, Mass.
Re-4-2146.

"This will acknowledge receipt of your letter of May 11th.

It would be very much appreciated if the writer could meet with your Engineer in order to discuss his recommendations."

Very truly yours,

HAMPDEN COUNTY COMMISSIONERS

By _____
Chairman

TFS:L

KIMBALL CONTAINER COMPANY

FIBERWOOD CONTAINERS, INC.
PIONEER BOX AND LUMBER CO.
PAPER PALLET SERVICE
CAN-PAK SERVICE
CORRUGATED SERVICE
KIMCO PACKAGING



The Symbol of Progress
in Custom Containers
Industrial • Military

FEEDING HILLS, MASS.
REPUBLIC 4 - 2146

MAY 28, 1966

BOARD OF COUNTY COMMISSIONERS
COUNTY OF HAMPDEN
52 STATE STREET
SPRINGFIELD, MASS.

GENTLEMEN:

THIS WILL ACKNOWLEDGE RECEIPT OF YOUR LETTER OF MAY 11TH.

IT WOULD BE VERY MUCH APPRECIATED IF THE WRITER COULD MEET
WITH YOUR ENGINEER IN ORDER TO DISCUSS HIS RECOMMENDATIONS.

THANK YOU VERY MUCH FOR YOUR COURTESY.

CORDIALLY YOURS,

CAN-PAK SERVICE, INC.

I. S. KIMBALL

ISK/E

GEORGE H. McDONNELL
PHILIP W. SHERIDAN
EDWARD J. BAYON

TIGHE & BOND CONSULTING ENGINEERS

CIVIL, SANITARY AND ELECTRICAL ENGINEERING
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SUPERVISION OF CONSTRUCTION AND OPERATION

BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991

CD Southwick
July 14, 1966

The Honorable the Board of County Commissioners
52 State Street
Springfield, Massachusetts

Re: Kimball Dam
Southwick, Mass.

Gentlemen:

Reference is made to the letter of June 3, 1966, sent to the undersigned by your Board quoting a communication from Mr. Irving Kimball regarding the report on his dam situated off Loomis Street in Southwick.

The undersigned met with Mr. Kimball, as per agreement, on Friday, July 8, and inspected his dam as well as reviewed the contents of your letter of May 11.

I pointed out to Mr. Kimball where the brush requires cutting, I indicated the logs and debris lodged in the small spillway channel and also explained to him the need for the construction of additional spillway capacity and continued high quality maintenance of the dam embankment.

I also pointed out to Mr. Kimball his responsibility relative to the protection of persons and property downstream of his dam and the requirements as set forth in the applicable sections of Chapter 253 of the General Laws of the Commonwealth.

Mr. Kimball has no particular plan for the pond and the dam in question. He has requested permission to breach the dam embankment so that the pond will be kept to a minimum volume and, in time of storm water run-off, little or no additional water will be impounded.

I advised Mr. Kimball to excavate a breach in the embankment of the dam adjacent to the conduit spillway. I recommended that the breach be dug approximately 4 ft. wide and that the bottom of the breach be brought down to the elevation of normal water level in the pond.

It is recommended that the owner be given 30 calendar days to take action relative to either properly repairing, or breaching this dam."

It was the understanding of the County Hydraulic Engineer that you agreed to take corrective action at this dam and had given consideration to breaching the dam so as to prevent the storage of the large quantity of water and provide adequate capacity for passing flood flows.

Since nothing has been done at this dam and the structure is further deteriorating, you are directed that within 30 calendar days of the date of this communication, you are to take positive action to either breach the dam as discussed previously with the County Hydraulic Engineer, or clear the dam of all brush growth, loam, seed and fertilize the embankment for promotion of a good turf growth and begin the construction of a well designed, adequate spillway facility.

Any further information desired in connection with this matter will be made available to you upon request.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

Irving Kimball
Dan

May 22, 1968

Mr. Irving Kimball
Kimball Container Company
Can-Pak Service, Inc.
Feeding Hills, Massachusetts

Dear Sir:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your dam situated off Loomis Street in Southwick has been inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

"This dam is not in satisfactory condition. In the past, the owner has been advised that the dam should be properly maintained by removal of all brush growth, the promotion of a good growth of turf on the top and side slopes of the embankment, and the construction of adequate spillway facilities. None of these things have been done by the owner. In a previous conference with the owner, he indicated to the undersigned, that the dam would probably be breached so that little or no water would be stored.

It is recommended that the owner be notified to either properly maintain the dam or to breach the embankment. If the dam is to be maintained, the owner should be required to immediately remove all brush growth and to loam, seed and fertilize all surfaces of the embankment. The present spillway should be rebuilt of proper size to safely pass anticipated flood flows.

At the time of the inspection of this dam, it was noted that the embankment is covered with a thick growth of brush and small trees. The small, inadequate and dilapidated spillway is partially plugged with debris. The concrete is worn and eroded.

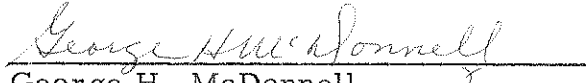
**TIGHE
& BOND CONSULTING ENGINEERS**

-2-

In this way, the breach will act as an emergency spillway, water will trickle thru the breach and slowly erode a deeper channel. The capacity of the breach will be such that storm flow will then safely pass the dam without impounding water to a point where the embankment will be overtopped. Within a matter of a year or two, the breach will be wide enough and deep enough so that little or no water will be stored behind the dam.

Mr. Kimball will proceed with this work this Summer and will notify the undersigned when it has been completed so that an inspection of the dam can be made and a report submitted to your Honorable Board.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/mbf

KIMBALL CONTAINER COMPANY

PIONEER BOX AND LUMBER CO., INC.
CORRUGATED SERVICE, INC.
CAN-PAK SERVICE, INC.
PAPER PALLET SERVICE
KIMFOAM SERVICE



The Symbol of Progress
in Custom Containers
Industrial • Military

FEEDING HILLS, MASS. 01030
TEL. (413) 734-2146
TWX 413-781-3096

JULY 19, 1968

OFFICE OF THE COUNTY COMMISSIONERS
COUNTY OF HAMPDEN
COMMONWEALTH OF MASSACHUSETTS
52 STATE STREET
SPRINGFIELD, MASS.

GENTLEMEN:

THANK YOU FOR YOUR LETTER OF MAY 22, 1968 WITH REGARD TO OUR DAM
IN SOUTHWICK.

AT THE SUGGESTION OF MR. STAPLETON, THIS OFFICE CONTACTED MR.
GEORGE MCDONALD TO DISCUSS THE BEST SOLUTION IN VIEW OF THE
DESIRE OF THE SOUTHWICK FIRE DEPARTMENT TO MAINTAIN THE SOURCE
OF WATER. IT WAS DECIDED THAT THE EMBANKMENT WOULD BE BREACHED
TO A DEPTH EQUAL TO THAT OF THE WATER LEVEL.

AS OF JULY 17, 1968, THE ABOVE HAS BEEN ACCOMPLISHED.

SINCERELY,

CAN-PAK SERVICE, INC.

RICHARD R. KIMBALL

RRK/E

GEORGE H. McDONNELL
PHILIP W. SHERIDAN
EDWARD J. BAYON

TIGHE & BOND

CONSULTING ENGINEERS

CIVIL, SANITARY AND ELECTRICAL ENGINEERING
INVESTIGATIONS, REPORTS, PLANS AND SPECIFICATIONS
SUPERVISION OF CONSTRUCTION AND OPERATION

BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991

CD Southwick
August 27, 1968

The Honorable the Board of County Commissioners
52 State Street
Springfield, Massachusetts

Re: Irving Kimball Dam

Gentlemen:

A re-inspection of the Irving Kimball Dam was made on Thursday, August 22, 1968 to determine the action taken by the owner relative to breaching the dam.

In my report to your Honorable Board on the condition of dams in the Town of Southwick dated May 21, 1968, I recommended that the owner be required to breach the dam so as to prevent the storage of water, particularly during flood flow conditions. Your Board sent a communication to the owner of the dam dated May 22, 1968, and directed that the owner take positive action to either breach the dam or maintain it properly.

The owner has been in contact with the undersigned and, based upon a telephone conference earlier this summer, the owner agreed to breach the dam in such a manner that flood flow water could be released from the pond without increasing the storage materially.

On my inspection of August 22nd, I noted that a satisfactory breach has been dug thru and across the embankment of the dam just to the right of the small concrete spillway structure. The depth of the excavation is such that the bottom of the ditch is about 4" to 6" above normal pond elevation. When flood flow conditions occur in the future, or should the small spillway become plugged with debris, surplus water will pass from the pond thru the breach in the embankment and be discharged to the stream below at about the rate of flow running off from the drainage area.

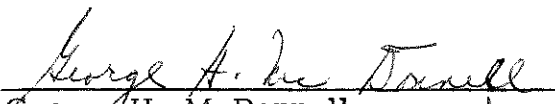
TIGHE
& BOND CONSULTING ENGINEERS

-2-

Since the material of the embankment is gravel, storm flow conditions will result in the breach being enlarged by water flowing thru the dug channel. Since the channel as now existing will release water before it can be built up to any great height behind the dam, there is no danger of a sudden release of stored water as has existed in the past.

In the opinion of the undersigned, the owner of this dam followed your directive and the dam is no longer a threat to persons and property downstream.

Respectfully submitted,


George H. McDonnell
County Hydraulic Engineer

GHM/amd

Battistoni Dam



1926 Southwick

Located on Sodom Brook

City/Town	Southwick
Dam	Battistoni Dam
Name	Battistoni, Josphe
Water	Sodom Brook

February 24, 1926

Mr. Joseph Battistoni,
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Section 45 of Chapter 253 of the General Laws as amended by Chapter 334 of the Acts of 1923 and as further amended by Chapter 178 of the Acts of 1924 relative to the inspection, condition and safety of the dams of Hampden County, you are notified that your dam, located on Sodom Brook so called in the Town of Southwick, has been inspected by our engineer and your attention is called to the following recommendations made by him;

"The dam is in fair condition except at the east end where there is some leakage which should be repaired. The trees growing in the dam should also be cut down."

Now, therefore, in accordance with Section 46 of said Chapter 253, it is ordered that the above recommendations be complied with in a reasonable time.

Yours very truly,

COUNTY COMMISSIONERS

By _____
Chairman.

Page 59 of report

Joseph Battistoni,
Southwick, Mass.

you are notified that your dam,
located on Sodom Brook so called in the Town of
Southwick, etc.

"The dam is in fair condition
except at the east end where there is
some leakage which should be repaired.
The trees growing in the dam should
also be cut down."

Now, therefore, etc.

Lake George Sportmen's Club Dams



1959 Southwick

Located on White Brook off Loomis Road.

City/Town	Southwick
Dam	Lake George Sportmen's Club Dams
Name	Lake George Sportmen's Club
Streets	Loomis Road
Water	White Brook

GEORGE H. McDONNELL
PHILIP W. SHERIDAN
EDWARD J. BAYON

TIGHE & BOND

CONSULTING ENGINEERS

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INVESTIGATIONS, REPORTS, PLANS AND SPECIFICATIONS
SUPERVISION OF CONSTRUCTION AND OPERATION

BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991

CD Southwick

March 23, 1959

The Hon. the Board of County Commissioners
Hampden County Court House
31 Elm Street
Springfield, Mass.

Att: Thomas Sullivan, Commissioner

Dear Sir:

Enclosed please find a copy of a communication sent to the Lake George Sportsmen's Club in Southwick in connection with my conference at the Club property with Mr. Corbin and others on Thursday afternoon, March 19, 1959. The contents of my letter are self-explanatory. I thought you might be interested in having a copy of the general advice passed on to the members of the club.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/mb

Enc.

CD Southwick
March 23, 1959

Lake George Sportsmen's Club
P. O. Box 203
Southwick, Mass.

Gentlemen:

This will confirm my conversation with Mr. Corbin and other representatives of your Club, on Thursday, March 19, 1959, at the site of your property off of Loomis Road in Southwick.

At the present time, there is a small pond existing at the site that is not directly in the valley of the drainage area. This pond is off to the side of the main brook, known as White Brook. The pond is fed by a small pipe with a valve used for controlling the amount of water that enters the pond. Since this pond is not on the main brook, and since the flow of the main brook does not pass thru the pond, the existing pond does not come under County control. In the opinion of the undersigned, even if the pond is increased to hold more than one million gallons of water, it will still not come under County control since the gallonage will not be stored on the main thread of the brook.

At one corner of the pond, just behind the earth embankment, there was a masonry overflow that was heavily damaged by ice during the past winter. This overflow has been changed and a vertical metal tube with a strainer on the top has been installed.

With a small hand level I determined that the strainer elevation is higher than the earth embankment forming the pond. Thus, should the strainer become plugged with leaves and debris, and the control valve at the upper end of the pond left open to allow water to flow into the pond, it is possible that the pond would become full to the top of the embankment and overflow the earth. If this does happen, it is possible that the earth embankment might be washed out and the pond lost.

In order to guarantee the safety of your earth embankment, it would be well to cut the top of the strainer at an elevation below the lowest grade of the top of the earth embankment and

to leave the top of the strainer open so that if the perforated sides become plugged with leaves, overflowing water will enter the strainer thru the open top. Naturally, leaves and twigs will enter the discharge pipe thru the open top. However, this material, in all probability, will be washed thru the pipe.

We discussed the advisability of installing a large semi-circular overflow spillway that would be heavily reinforced and would have a sloping top that would tend to lift ice, should ice pressure occur and thus prevent damage to the spillway structure. On further consideration of this type of spillway, I am of the opinion that it will be quite costly to build and there will be a very thin film of water at best passing over the crest. This thin film probably will not be sufficient to prevent ice formation directly on the spillway. It would be better if the spillway could be kept at as small a section as possible so that a continuous flow of water thru the pond and over the spillway opening will be large enough in cross-sectional area to prevent the formation of ice right at the spillway lip. Thus, a vertical tube spillway of the type that you now have, with a free top opening, might be your safest and best solution.

To prevent the mass movement of ice from damaging this vertical stack, it would be well to encase it in solid and not hollow masonry. In fact, it might even be possible to use earth and heavy stone of a riprap type to mound up and around the spillway shaft. This would amount to filling the entire corner of the pond where the spillway shaft now exists with earth and riprap. An opening thru the riprap leading to the drain could be maintained for pond-lowering purposes. With such an arrangement, cost would be low and any ice action will be against the riprap and earth, rather than directly against the overflow. The overflow stack would extend only a few inches above the earth and riprap.

It would be well, in the future, to keep water flowing thru the pond throughout the winter months. The continuous flow of a sizeable amount of water over the spillway will prevent ice formation right at the spillway crest. Also, such a continuous overflow will tend to keep your discharge pipe clean.

The possibility of constructing a dam across White Brook proper was also discussed. I have made a check of the drainage area of White Brook at the point where the dam is proposed. It would appear as if the drainage area is approximately 0.85 square miles.

Dams come under County jurisdiction when one or more of the following conditions exist, provided the dam is on a main

thread of the stream.

- (a) If the drainage area is equal to a square mile or more.
- (b) If the amount of water stored is equal to one million gallons or more.
- (c) If the height of the dam above the bed of the stream is 10 ft. or more.

Since the drainage area involved is less than a square mile, it will not be necessary for you to file plans and specifications of your proposed construction if you keep the dam less than 10 ft. in height and if the quantity of water to be stored is less than one million gallons. The dam talked about is apparently going to be about 4 ft. in height and the quantity of water that will be stored will be much less than one million gallons. Consequently, your proposed dam on White Brook will not come under County control.

If it is decided to build a dam on White Brook, it would seem to the undersigned that a concrete overflow section would be the most permanent and desirable type of structure. If a dam of this type is built, it should be well bonded to the sidewalls of the valley with reinforced concrete cut-off walls. To prevent leakage under the dam and loss of the dam foundation, it would also be desirable to extend the side cut-off walls under the dam and to tie in this foundation cut-off wall with the sidewalls. The foundation cut-off wall should extend down to a reasonably good impervious material.

If it is eventually decided to build this dam, even though it does not come under County control, the undersigned would be pleased to provide you with advice on the matter, if you so desire.

Please feel free to call upon me at any time in connection with pond or dam problems.

Very truly yours

George H. McDonnell
County Hydraulic Engineer

GHM/cmb

Logie Dam fka Purtel & Stauble Dams



1957 Southwick

Two dams situated on Whitewood Lake just westerly of South Loomis Street. See also: County Roads Plan #10 (1957) "Repair dam for H J Logie, South Loomis Street".

City/Town	Southwick
Dam	Logie Dam
Dam	Purtel & Stauble Dam
Name	Logie, Arthur J
Streets	South Loomis Street
Water	Whitewood Lake

WATER SUPPLY
SEWERAGE
SEWAGE DISPOSAL
STRUCTURAL ENGINEERING
ELECTRICAL ENGINEERING

TIGHE & BOND, Inc.
CONSULTING ENGINEERS
BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991

GEORGE H. McDONNELL
PHILIP W. SHERIDAN

DAMS & POWER INSTALLATIONS
HIGHWAYS & BRIDGES
HOUSING DEVELOPMENT
WASTE DISPOSAL

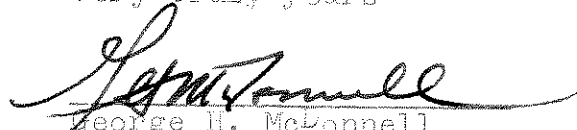
CD Southwick
March 26, 1957

The Hon. the Board of County Commissioners
Hampden County Court House
Springfield, Mass.

Gentlemen:

Enclosed for your information and file purposes please find a copy of a communication sent to Dr. Logie of Southwick regarding a preliminary sketch plan that he submitted to the undersigned for review in connection with proposed repairs to his dam. The contents of my letter to Dr. Logie are self explanatory.

Very truly yours


George H. McDonnell
County Hydraulic Engineer

Enc.
GHM/cmb

CD Southwick
March 26, 1957

Dr. A. J. Logie
So. Loomis Street
Southwick, Mass.

Dear Dr. Logie:

I have received the preliminary plan of the proposed repairs to your dam in Southwick. It is noted on the plan that you plan to install a 2 ft. pipe for drainage purposes thru the right side of the dam where the breach occurred during the flood of August 1955. The installation of this pipe is desirable and the pipe should include a gate and operating facilities so that the pond can be drawn down at any time for inspection and maintenance purposes. The pipe should be of a material satisfactory to withstand the weight of the fill of the dam and the pipe should have water tight joints so that there will be no opportunity for leakage thru the joints.

The fill to be replaced at the breach should be a selected fill and it should be placed in layers and properly tamped in order that it will be reasonably impervious to the passage of water. The surface of the ground as well as the exposed surface of the bank should all be cleaned, keyed and properly prepared to receive the fill material.

Fill cannot be simply dumped into the breach nor pushed into the breach from the upper level at the right bank. The fill should be placed in thin layers in a horizontal fashion and each layer compacted into place to make a dense uniform plug at the site of the breach. This earth to be packed into the breach must be tied and bonded to the existing surface so that there will be no leakage between the existing ground surface and the plug material. The material should also extend to include the stone masonry portion of the dam for a sufficient distance to provide a water tight bond between the stone masonry and the plug of earth fill.

The widening of the spillway to 20 ft. is a desirable improvement at this dam. The full depth of spillway should be maintained for the entire 20 ft. of width. If possible, it might even be desirable to increase the depth of spillway. This is a matter for consideration in preparing the detailed plans for construction and filling purposes. I am returning your tracing to you along with a print made at this office and indicating thereon the locations of compacted and selected fill, as well as the inclusion of a gate on the drainage pipeline.

-2-

Before you proceed further with the work, it would be well to discuss the matter and I would be pleased to meet with you at the site of the work to go over the proposed construction in advance of preparing your plans for filing. I will be pleased to meet with you in Southwick at a time and date convenient to you. If you will call or write and let me know when you would care to discuss this matter in the field, I will plan to go to Southwick.

Before any construction work is started on this project that will eventually result in the impounding of water, plans and specifications of the work must be prepared in detail and filed with the County Commissioners for their review and approval.

Very truly yours

George H. McDonnell
County Hydraulic Engineer

Enc.
GHM/emb

Feb. 5, 1958

Dr. Logie
Loomis Road
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition, and safety of the dams of Hampden County, you are hereby advised that your Upper Dam reconstructed in 1957 has been inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

" This dam has been rebuilt during the past year. It was breached in the flood of August, 1955 when the right end and right abutment area was washed through.

Plans and specifications for proposed reconstruction were prepared, filed, and approved. The dam has been rebuilt in accordance with the plans and specifications. There is still some work that should be done, however, in order to improve the safety of the dam. This work is:

- A. The spillway chute downstream of the newly constructed masonry section should be widened and trees on the banks of the spillway chute should be removed. As they now exist, flood waters could wash out these trees with the result that they would fall into the spillway chute and probably block the flow of flood water.
- B. Behind the left spillway wall the earth should be graded in the cut area so that surface runoff will not wash this soil from behind the spillway wall.
- C. Leakage is occurring thru the dam and emerges at the toe. This is probably due to the coarse embankment material used in constructing the dam and due to the foundation on which the dam has been built. This leakage is not dangerous since the head is low and the dam fill quite wide. However, the leakage might be enough to cause lowering of the pond in extreme dry weather. Leakage control could best be accomplished on the upstream face of the embankment by dumping fine material into the

pond or paving the upstream surface of the embankment and the bottom of the pond adjacent to the embankment with an impervious material. The free flow now occurring at the toe of the dam must not be plugged on the downstream face. "

Any further information concerning this matter which you may desire will be furnished by this office upon request.

Very truly yours,

HAMPDEN COUNTY COMMISSIONERS

ARTHUR J. LOGIE, M. D.
MEDICAL ARTS BUILDING
30 COURT STREET
WESTFIELD, MASSACHUSETTS

January 26, 1959

Office of the County Commissioners
County of Hampden
37 Elm St.
Springfield, Mass.

Dear Sir:

In a communication from you concerning a dam which is on my property I wish to make a report. This dam comes under the jurisdiction of the County Commissioners and you have recommended that I clear my spillway to accomodate any flood waters.

This spillway has been cleared of all brush and trees and now I believe will accomodate any flood water, which might come in the spring or summer.

Thanking you for your recommendation.

Very truly yours,

Arthur J. Logie, M.D.

Arthur J. Logie, M. D.

copy of this letter mailed to
~~XXXXXXXXXXXXXXXXXXXX~~ on Jan. 29, 1959.
George H. McDonnell
County Hydraulic Engineer

ARTHUR J. LOGIE, M. D.
MEDICAL ARTS BUILDING
30 COURT STREET
WESTFIELD, MASSACHUSETTS

February 7, 1958

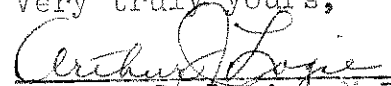
Office of County Commissioners
37 Elm Street,
Springfield, Mass.

Dear Sirs:

Your letter concerning the dam on my property has been received. Your suggestions will be complied with at the first possible opportunity.

Thank you for this inspection report.

Very truly yours,


Arthur J. Logie, M.D.

AJL/md

copy of this letter mailed to
George H. McDonnell, County Hydraulic
Engineer, on February 13, 1958.

Southwick

Oct. 10, 1962

Dr. A. J. Logie
South Loomis Street
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Chapt. 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your two dams situated just westerly of South Loomis St., in Southwick, have been inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him, as regards the Lower of your two dams.

"The embankment at this dam should be cleared of all brush and small tree growth. A good growth of turf should be promoted on the dam. The spillway culvert thru the embankment of the dam should be cleared of all debris.

The capacity of the spillway at this dam is not large enough to serve the drainage area involved. As pointed out in previous years, the spillway capacity should be increased, either by enlarging the existing spillway or constructing a suitably large swale spillway around the end of the dam on natural ground."

Any further information concerning these matters which you may desire will be furnished by this office upon request.

Very truly yours

BOARD OF COUNTY COMMISSIONERS

ARTHUR J. LOGIE, M. D.

MEDICAL ARTS BUILDING

30 COURT STREET

WESTFIELD, MASSACHUSETTS

October 17, 1962

Thomas F. Sullivan
Office of the County Commissioners
37 Elm St.
Springfield, Mass.

Dear Mr. Sullivan:

In answer to your letter concerning
the two dams on South Loomis St.,
Southwick, Mass.

I disposed to the Lower Dam approx-
imately one year ago. It is now owned
by a Irving Kimball.

Very truly yours,



Arthur J. Logie, M. D.

copy of this letter sent to
George H. McDonnell, County
Hydraulic Engineer, on Oct. 19, 1962.

October 21, 1964

Dr. A. J. Logie
South Loomis Street
Southwick, Massachusetts

Dear Dr. Logie:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your dam situated just westerly of South Loomis Street in Southwick has been inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

"The embankment of this dam was found to be in relatively good condition with the exception of the fact that brush growth is becoming quite thick on both the upstream and the downstream slope. All brush, particularly on the downstream slope and at the toe of the dam, should be cut down and kept cut down so that proper examinations of the dam embankment can be made. There was no evidence of settlement on the road surface that crosses the embankment. On the day of inspection, it was noted that the pond elevation was down 4 feet more or less from the floor elevation of the spillway channel. The spillway channel was clean and clear of debris. The area under the bridge was satisfactory."

In order that proper inspections can be made at the dam and in order that you may readily observe the need for any maintenance to the embankment, all brush should be kept cut down as recommended by the County Hydraulic Engineer.

Any further information desired in connection with this matter will be made available to you upon request.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

ARTHUR J. LOGIE, M. D.
MEDICAL ARTS BUILDING
30 COURT STREET
WESTFIELD, MASSACHUSETTS
October 5, 1967

Commissioners of Hampden County
52 State St.
Springfield, Mass.

Dear Sirs:

I wish to widen the road over the dam, at Whitewood Lake, Southwick, by eight feet. This will entail a fill of eight feet on the lakeside and an extension of the roadway over the spillway.

In the spillway I wish to place four thirty inch re-inforced culverts (2000D) faced by a wall, 18 in. base to 12 in. top, about 6ft. high.

Should your engineers approve of this, would you kindly notify me for my records.

Very truly yours,


Arthur J. Logie

CD Southwick
October 24, 1967

The Honorable the Board of County Commissioners
52 State Street
Springfield, Massachusetts

Re: Dr. Logie Dam
Whitewood Lake
Southwick, Mass.

Gentlemen:

Reference is made to the above subject dam and to the letter from Dr. Logie written to your Board on October 5, 1967. I have met with Dr. Logie relative to improvements he wishes to make at his dam on Whitewood Lake in Southwick. His intention is to widen the dam by about 8 ft. by placing compacted fill on the upstream face of the dam and then extending the spillway channel from the existing bridge by laying four 30" diameter concrete culverts side by side just upstream of the present spillway entrance.

I have reviewed the drainage area involved and find that the culverts will provide adequate capacity to pass anticipated flood flows. I have advised Dr. Logie that if the work as contemplated is done, the material through which the culvert pipes will be laid should be a well compacted impervious soil backfilled tightly against the outside surfaces of the 30" pipes. I have also advised him that the headwall at the entrance to the four 30" pipes should be well constructed on sound compacted material.

The work as planned by Dr. Logie will increase the mass of the earth embankment forming the dam. By properly constructing the proposed improvement and enlargement of the dam as well as the extension of the spillway facility, the dam would be improved and the safety of the structure increased.

A recommended communication is included herewith for your consideration relative to this matter.

Very truly yours,

George H. McDonnell
County Hydraulic Engineer

GHM/mbf

CD Southwick
October 24, 1967

The Honorable the Board of County Commissioners
52 State Street
Springfield, Massachusetts

Re: Dr. Logie Dam
Whitewood Lake
Southwick, Mass.

Gentlemen:

Reference is made to the above subject dam and to the letter from Dr. Logie written to your Board on October 5, 1967. I have met with Dr. Logie relative to improvements he wishes to make at his dam on Whitewood Lake in Southwick. His intention is to widen the dam by about 8 ft. by placing compacted fill on the upstream face of the dam and then extending the spillway channel from the existing bridge by laying four 30" diameter concrete culverts side by side just upstream of the present spillway entrance.

I have reviewed the drainage area involved and find that the culverts will provide adequate capacity to pass anticipated flood flows. I have advised Dr. Logie that if the work as contemplated is done, the material through which the culvert pipes will be laid should be a well compacted impervious soil backfilled tightly against the outside surfaces of the 30" pipes. I have also advised him that the headwall at the entrance to the four 30" pipes should be well constructed on sound compacted material.

The work as planned by Dr. Logie will increase the mass of the earth embankment forming the dam. By properly constructing the proposed improvement and enlargement of the dam as well as the extension of the spillway facility, the dam would be improved and the safety of the structure increased.

A recommended communication is included herewith for your consideration relative to this matter.

Very truly yours,

George H. McDonnell
County Hydraulic Engineer

GHM/mbf

October 25, 1967

Arthur J. Logie, M.D.
30 Court Street
Westfield, Massachusetts

Dear Dr. Logie:

Your letter of October 5, 1967, regarding improvements to your dam at Whitewood Lake in Southwick has been received and a copy sent to the County Hydraulic Engineer for his review and comments. Mr. McDonnell has advised our Board that he has discussed the proposed changes at your dam with you and has recommended to our Board that you be allowed to increase the width of the dam embankment and extend the spillway as per your communication.

When you enlarge the fill of the embankment on the lake side, it is important that this fill be well compacted and that it be somewhat pervious in nature. In order to properly place the fill, the lake should be emptied, the upstream surface of the embankment cleared of any debris and vegetation and the new fill should be placed in thin horizontal layers, beginning at the bottom of the lake and working upwards along the face of the embankment.

When the upstream embankment fill approaches the elevation of the spillway, the material for the new fill in the vicinity of the four 30" reinforced culvert pipes should be of an impervious nature and should be well compacted. In order that there will be no leakage along the outside surface of these pipes, the material under, around and over the pipes must be fine grained, densely compacted soil of a clay-sand mixture, glacial till or hardpan.

At the downstream end of the four parallel culvert pipes, a watertight connection should be made with the spillway channel under the existing bridge. If the pipelines are simply laid in the impervious fill and the fill is exposed at the downstream end of these pipes, this material will eventually erode away by a combination of weather and water action. These pipelines must have a proper discharge or endwall as well as a proper entrance or headwall.

Both of these walls should be built on well compacted solid soil so that there will be no settlement. Any settlement of walls or pipe sections will cause opening of joints and the need for reconstruction and realignment of these pipes.

Since you apparently will widen the road over the top of the dam and this road will undoubtedly be paved, it is extremely important that the pipelines be well and properly installed.

Because of the fact that this roadway may also be a public access to your proposed Development, a drawing of the spillway piping together with the headwall and endwall should be filed with our Board. The drawing should show the manner in which the endwall will seal the four pipelines and form a transition section between these pipelines and the existing channel under the roadway bridge now in place.

Please file this drawing as soon as possible so that any work to be done can be approved prior to construction and not require reconstruction due to improper layout and methods from a safety and operational point of view.

Kindly notify the County Hydraulic Engineer of your construction schedule and particularly let him know when the spillway 30" pipelines are being placed and the headwall as well as endwall construction is underway. This portion of the work should not be started, as mentioned hereinbefore, until your drawing of the work is filed and approved.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

May 22, 1968

Dr. Arthur J. Logie
Medical Arts Building
30 Court Street
Westfield, Massachusetts

Dear Dr. Logie:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety to the dams of Hampden County, you are hereby advised that your dam situated off of Loomis St. in Southwick has been inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

"Two small and poorly built catchbasins have been constructed on the top of the dam embankment. One is on each side of the roadway crossing the dam. These catchbasins are small, they have no sump and the masonry construction is such that much of the water collected will be discharged into the fill of the dam embankment. However, this condition will not endanger the dam.

The sidewalk on the downstream edge of the top of the dam embankment needs to be repaired. The sidewalk surfacing has been broken as a result of drainage construction. This area of the sidewalk is low in elevation and can probably be washed through by surface water runoff under certain conditions of storm flow.

Toe seepage was noted to be about the same as observed in the past. A sizeable amount of water seeps from the toe but no fine grained material is moving with the seepage water. The rock fill of the toe allows the seepage water to be released and this material functions to hold back the fill forming the dam embankment. The dam embankment is quite wide for its relatively low height. The top width of the embankment is about 40 feet, and side slopes, though steep, are fairly stable.

The spillway under the bridge has been extended upstream with four concrete tubes having adequate capacity to meet the anticipated flood flow requirements of the drainage area.

The loose stone fill adjacent to the edge of the first concrete tube is very steep and appears to be unstable. This stone fill should be replaced with a retaining wall either of concrete or properly laid up field stone masonry.

In the opinion of the undersigned, this dam is safe. However, the owner should follow the recommended improvements and changes so as to minimize maintenance requirements at the dam."

It is recommended that you follow the advice of the County Hydraulic Engineer by improving the retaining wall near the first spillway pipe extension and by properly repairing the sidewalk area so as to prevent any surface water from overtopping the sidewalk and causing erosion of the dam embankment.

Any further information desired in connection with this matter will be made available to you upon request.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

Dr. Arthur J. Logie
Dam

GEORGE H. McDONNELL
PHILIP W. SHERIDAN
EDWARD J. BAYON

TIGHE & BOND

CONSULTING ENGINEERS

CIVIL, SANITARY AND ELECTRICAL ENGINEERING
INVESTIGATIONS, REPORTS, PLANS AND SPECIFICATIONS
SUPERVISION OF CONSTRUCTION AND OPERATION

BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991

CD Southwick
October 24, 1967

The Honorable the Board of County Commissioners
52 State Street
Springfield, Massachusetts

Re: Dr. Logie Dam
Whitewood Lake
Southwick, Mass.

Gentlemen:

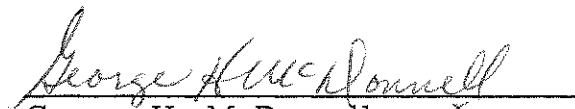
Reference is made to the above subject dam and to the letter from Dr. Logie written to your Board on October 5, 1967. I have met with Dr. Logie relative to improvements he wishes to make at his dam on Whitewood Lake in Southwick. His intention is to widen the dam by about 8 ft. by placing compacted fill on the upstream face of the dam and then extending the spillway channel from the existing bridge by laying four 30" diameter concrete culverts side by side just upstream of the present spillway entrance.

I have reviewed the drainage area involved and find that the culverts will provide adequate capacity to pass anticipated flood flows. I have advised Dr. Logie that if the work as contemplated is done, the material through which the culvert pipes will be laid should be a well compacted impervious soil backfilled tightly against the outside surfaces of the 30" pipes. I have also advised him that the headwall at the entrance to the four 30" pipes should be well constructed on sound compacted material.

The work as planned by Dr. Logie will increase the mass of the earth embankment forming the dam. By properly constructing the proposed improvement and enlargement of the dam as well as the extension of the spillway facility, the dam would be improved and the safety of the structure increased.

A recommended communication is included herewith for your consideration relative to this matter.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/mbf

GEORGE H. McDONNELL
PHILIP W. SHERIDAN
EDWARD J. BAYON

***TIGHE
& BOND***

CONSULTING ENGINEERS

CIVIL, SANITARY AND ELECTRICAL ENGINEERING
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SUPERVISION OF CONSTRUCTION AND OPERATION

BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991

CD Southwick
January 24, 1969

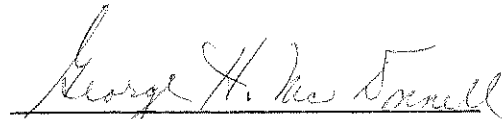
The Honorable the Board of County Commissioners
52 State Street
Springfield, Massachusetts

Re: Dr. Logie Dam, Southwick

Gentlemen:

Enclosed please find a copy of a communication sent to Conlon Associates, Inc. of Westfield regarding the above subject dam. The request for the information apparently is related to development planning work on property adjacent to the dam. The contents of my letter are self-explanatory.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/amd
Encl.

GEORGE H. McDONNELL
PHILIP W. SHERIDAN
EDWARD J. BAYON

*TIGHE
& BOND*

CONSULTING ENGINEERS

CIVIL, SANITARY AND ELECTRICAL ENGINEERING
INVESTIGATIONS, REPORTS, PLANS AND SPECIFICATIONS
SUPERVISION OF CONSTRUCTION AND OPERATION

BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991

January 24, 1969

Conlon Associates, Inc.
8 Main Street
Westfield, Massachusetts

Re: Dr. Logie Dam, Southwick

Gentlemen:

Reference is made to the above subject dam and to your request that I comment on the size and the capacity, as well as adequacy of four 30" diameter culvert pipes forming a portion of the spillway facility at the dam.

Based upon existing development on the drainage area involved which is mainly the easterly slope of a portion of Sodom Mountain, the culvert pipes have adequate capacity to care for the annual run-off condition. My computations have been based upon the fact that the profile of the roadway along the top of the dam is such that the lowest portion of the roadway is at the spillway.

With the passing of time and any substantial change in connection with land usage of the drainage area which would cause an increase in the rate of run-off for a given storm, it may be necessary to improve the spillway facility at the dam and to increase its capacity.

Please be advised that at the time of the last inspection of this dam in the Spring of 1968, we reported that two small and poorly built catch-basins had been constructed on the top of the dam embankment, and much of the water collected by these basins will be discharged into the fill of the dam embankment. Though this condition will probably not endanger the dam, the operation of the basins should be checked periodically for any necessary corrective action.

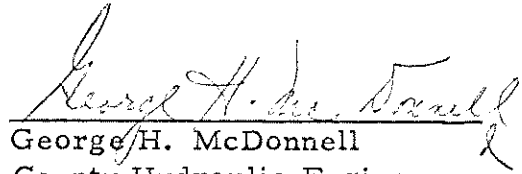
**TIGHE
& BOND CONSULTING ENGINEERS**

At the time of the inspection the sidewalk on the downstream edge of the top of the dam embankment was in need of repairs. The surface had apparently been broken as a result of drainage construction.

Loose stone fill was noted to be adjacent to the edge of the first concrete tube and the fill was very steep and unstable. The undersigned recommended to the County Commissioners that Dr. Logie replace this loose stone fill with a retaining wall either of concrete or properly laid up fieldstone masonry.

If there is any further information needed by you in connection with this dam, please do not hesitate to call upon me.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/amd

GEORGE H. McDONNELL
PHILIP W. SULLIVAN
EDWARD J. DAYON

**TIGHE
& BOND**

CONSULTING ENGINEERS

CIVIL, SANITARY AND ELECTRICAL ENGINEERING
INVESTIGATIONS, REPORTS, PLANS AND SPECIFICATIONS
SUPERVISION OF CONSTRUCTION AND OPERATION

BOWERS AND PEQUOT STREETS
HOLYOKE, MASSACHUSETTS
TEL. JEFFERSON 3-3991

CD Southwick
March 17, 1969

Dr. Arthur J. Logie
Medical Arts Building
30 Court Street
Westfield, Massachusetts

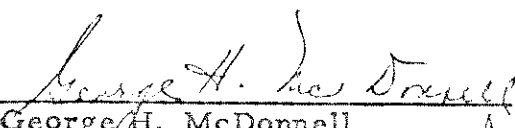
Dear Sir:

Reference is made to your dam in the Town of Southwick, and the fact that there now exists a heavy snow cover throughout Western Massachusetts. The water content of this snow cover, coupled with a warm spring rain could result in extremely heavy runoff conditions. Consequently, the Commissioners of Hampden County have directed that I advise you to be sure that the spillway facilities at your dam are clear of any obstruction and that you take all precautions necessary to protect your dam as well as persons and property downstream.

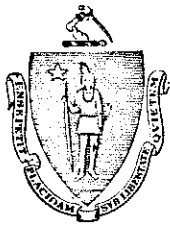
The dam and spillway facilities should be examined to be certain that no object or debris is present to plug the spillway openings. Frequent inspections at the dam are necessary to prevent any plugging of the spillway and you should make these inspections frequently until after the heavy spring runoff has taken place.

If you have any question in connection with this matter, the undersigned can be reached at the above address and telephone number.

Very truly yours,


George H. McDonnell
County Hydraulic Engineer

GHM/amd



Commonwealth of Massachusetts

County of Hampden

Springfield, Mass.

Office of the
County Commissioners
52 State Street

William F. Stapleton
Chairman

~~Robert H. Hickey~~

Floyd M. Fradet

Stephen A. Moynahan

November 26, 1969

Mr. Basil Tysz
c/o Hathaway & Steane Corp.
College Highway
Southwick, Massachusetts

Dear Sir:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your dam located in the Town of Southwick on Slab Brook and easterly of the New York, New Haven and Hartford Railroad tracks has been recently inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

"The embankment of this dam was found to be in satisfactory condition. The toe area was in fair condition but the slope of the downstream face of the embankment in the vicinity of the spillway tube was quite steep and eroded. This area should be repaired.

There is some brush and weed growth occurring on the embankment but it is not too bad as yet. The top surface of the embankment is o.k.

Some of the stoplogs were out of the slots of the spillway inlet. Water level in storage was low.

The spillway tube and the inlet structure were o.k. Little debris of no consequence was noted in the inlet.

The shape of the embankment was observed to be generally good. The swale at the left of the embankment is satisfactory. This is in the area at the access road. Should storm flows cause the surface of ponded water to approach the elevation of the top of the embankment, these

flows would be discharged around the dam, thru the swale to the left, in the vicinity of the access road.

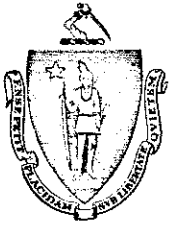
In the opinion of the undersigned, the dam is safe but should receive maintenance and attention as pointed out."

You are advised to follow the recommendations of the County Hydraulic Engineer relative to the proper maintenance of the embankment. By properly maintaining the dam, you will be protecting your investment in this facility.

Any further information desired in connection with this matter will be made available to you upon request.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS



Commonwealth of Massachusetts

County of Hampden

Springfield, Mass.

Office of the
County Commissioners
52 State Street

William F. Stapleton
Chairman

~~Robert J. Stedman~~

Lloyd B. Fradet

Stephen A. Moynahan

November 26, 1969

Dr. Arthur J. Logie
Medical Arts Building
30 Court Street
Westfield, Massachusetts

Dear Dr. Logie:

In accordance with the provisions of Chapter 253, Section 45, et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your dam situated off of Loomis St. in Southwick has been inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him.

"The catchbasin system which collects surface wash from the top of the dam and from the side slopes at either end of the dam, is not adequate and is poorly laid out. The catchbasins cannot properly handle heavy rates of storm runoff and there is evidence on the ground that this condition has occurred. Neither of the catchbasins have side inlets and consequently, leaves, paper, sticks, debris, etc., will plug the horizontal grate openings and as a result, surface runoff will pond on the dam and then wash over the sloping face of the dam. A more functional drainage system should be provided for the roadway crossing the top of the dam embankment.

Toe seepage was noted to be about normal. Some brush is growing at the toe and from the downstream face of the dam. This brush growth should be kept cut down and a cover of turf should be developed over the surface of the downstream slope of the embankment.

The loose stone fill adjacent to the edge of the upstream end of the first concrete tube on the left as one faces downstream is quite steep and appears to be very unstable. This fill should be replaced with either a retaining wall or a properly laid up fieldstone masonry or concrete wall.

The spillway was o.k. on the day of inspection. Water in storage was at the invert elevation of the tubes and there was no debris in the spillway tubes or under the spillway bridge.

The tree growing at the spillway inlet should be cut down. Also, the tree growing on the downstream face of the dam should be removed.

In the opinion of the undersigned, the dam is in satisfactory condition. However, it should be given better maintenance and the recommendations contained herein should be followed by the owner."

It is again recommended that you follow the advice of the County Hydraulic Engineer by improving the retaining wall near the entrance end of the first spillway pipe at the left of the dam and by having proper drainage facilities to handle surface runoff from the surface of the dam. Proper maintenance at minimum expense, made at an early date, will certainly prevent the need for much more extensive repairs at a higher cost later on. It would be to your advantage to maintain your investment in a proper and suitable manner.

Any further information desired in connection with this matter will be made available to you upon request.

Very truly yours,

BOARD OF COUNTY COMMISSIONERS

Steele Dam



1951 Southwick

Located adjacent to property on Pearl Brook.

City/Town	Southwick
Dam	Steele Dam
Name	Steele, Philip B
Water	Pearl Brook

June 27, 1951

Philip B. Steele
Vining Hill Road
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Chapter 253, Section 45 et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your dam located adjacent to your home on Pearl Brook in Southwick, has been recently inspected by our Engineer, and your attention is called to the following conditions noted and recommendations made by him:

"Evidence indicates that the dam was recently topped by flood flows. The stop gate planking was evidently too high to provide sufficient free board. Part of the stop gate planking should be removed each year from fall through spring, in order to provide a sufficiently large waterway for the passage of heavy runoff."

Any further information concerning this matter which you may desire will be furnished by this office upon request.

Very truly yours,

COUNTY COMMISSIONERS

By _____
Chairman

*Steele Dam on
Pearl Brook
Southwick*

Pieszczarka Dam



1933 Southwick

Located on Shurtleff Brook - may also be located on Sodom Brook.

City/Town	Southwick
Dam	Pieszczarka Dam
Name	Pieszczarka, John
Water	Shurtleff Brook
Water	Sodom Brook

May 17, 1933

Mr. John Piesczarka,
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Section 45 of Chapter 253 of the General Laws as amended by Chapter 334 of the Acts of 1923 and as further amended by Chapter 178 of the Acts of 1924 relative to the inspection, condition and safety of the dams, of Hampden County, you are notified that your dam, located on Sodom Brook, so called, in the Town of Southwick, has been inspected by our engineer and your attention is called to the following conditions noted and recommendations made by him;

"The pondage formed is small and no damage would be caused by failure of the dam, but if the owner intends to maintain the pond it would be advisable to make repairs around the spillway of the structure where the concrete walls are beginning to break down."

Any further information concerning this matter which you may desire will be furnished by this office upon request.

Yours very truly,

COUNTY COMMISSIONERS

By _____
Chairman.

November 1, 1950

Mrs. J. Pieczarka
35 Loomis Street
Southwick, Mass.

Dear Madam:

In accordance with the provisions of Chapter 253, Section 45 et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your dam located on Shurtleff Brook in Southwick has been recently inspected by our Engineer and your attention is called to the following conditions noted and recommendations made by him:

"The concrete and stonework has disintegrated at numerous places and there is leakage under and through the dam."

Any further information concerning this matter which you may desire will be furnished by this office upon request.

Very truly yours,

COUNTY COMMISSIONERS

By _____ Chairman

June 27, 1951

Mrs. J. Pieczarka
35 Loomis Street
Southwick, Mass.

Dear Madam:

In accordance with the provisions of Chapter 253, Section 45 et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your dam located on Shurtleff Brook in Southwick has been recently inspected by our Engineer, and your attention is called to the following conditions noted and recommendations made by him:

"There is evidence of undermining of the concrete sidewall overflow. This undermining should be investigated and filled with heavy material, preferably coarse gravel or rip rap."

Any further information concerning this matter which you may desire will be furnished by this office upon request.

Very truly yours,

COUNTY COMMISSIONERS

By _____
Chairman

*Pieczarka Dam
Southwick*

Tarant Dam



1937 Southwick

Located on tributary of Great Brook

City/Town	Southwick
Dam	Tarant Dam
Name	Tarant, R D
Water	Great Brook

November 3, 1937

Mr. R. D. Tarant
Longyard St.
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Chapter 253, Section 45 et seq. of the General laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby notified that your dam on a tributary of Great Brook in Southwick has been inspected by our engineer and your attention is called to the following conditions noted and recommendations made by him;

"While some repairs have been made on this small dam, further repairs are necessary on the plank spillway. Also, the top of the dam should be leveled up and raised somewhat, leaving a swale at one end to act as an emergency overflow in time of high water. It is recommended that the owner be notified about these further necessary repairs."

Any further information concerning this matter which you may desire will be furnished by this office upon request.

Yours very truly,

COUNTY COMMISSIONERS

By _____
Chairman

P.S. Copy of this letter is being sent to A. L. Creeger.

Southern New England Ice Company Dike



1933 Southwick

Issue regarding dike at the lower end of the South Lake.

City/Town	Southwick
Dam	Southern New England Ice Company Dike
Name	Southern New England Ice Company
Railroads	New York, New Haven & Hartford Railroad
Water	South Lake

TOWN OF SOUTHWICK
MASSACHUSETTS

OFFICE OF
BOARD OF SELECTMEN

June 20, 1933.

To Hon. County Commissioners
Springfield, Mass.

Dear Gentlemen;

In regards the matter of the
dike at the lower end of the South Lake,
as near as we can learn it is on the
Southern New England Ice Co's Land. However
we will write the Real Estate Department
of the N. Y. N. H + H. R. R. for verification

Yours very truly
Arthur C. Gillett, Clerk
for Selectmen.

Copy to Mr. Dighe 6/30/33

Kellogg Dam



1951 Southwick

Located westerly of Loomis Street.

City/Town	Southwick
Dam	Kellogg Dam
Name	Kellogg, Theodore M
Streets	Loomis Street

June 27, 1951

Theodore M. Kellogg
Loomis Street
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Chapter 253, Section 45 et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby advised that your dam located westerly of Loomis Street in Southwick has been recently inspected by our Engineer, and your attention is called to the following conditions noted and recommendations made by him:

"All brush and scrub growth on this dam should be removed and the dam properly maintained. If the owner does not wish to keep the dam cleaned and properly maintained, the structure should be breached."

Any further information concerning this matter which you may desire will be furnished by this office upon request.

Very truly yours,

COUNTY COMMISSIONERS

By _____
Chairman

Purtell & Stauble Dams



1940 Southwick

Dams located on Sodom Brook. See also: Logie Dam.

City/Town	Southwick
Dam	Purtell & Stauble Dams
Name	Purtell, William A
Name	Stauble, Wilbur C
Water	Sodom Brook

NOTE:

Envelope address.

Mr. Wm. A. Purtell
687 Broadview Ter.
Hartford, Conn.

AUGUST 7, 1940

Mr. Wm. A. Purtell
Mr. Wilbur C. Stauble
687 Broadview Ter.
Hartford, Conn.

Dear Sirs:

In accordance with the provisions of Chapter 253, Section 45 et seq. of the General Laws, Tercentenary Edition, relative to the inspection, condition and safety of the dams of Hampden County, you are hereby notified that your dams on Sedon Brook in Southwick have been inspected by our engineer, and your attention is called to the following conditions noted and recommendations made by him;

"There are some shall leakages through the masonry of the upper dam, which should be attended to. These leakages, very probably, can be stopped by the depositing of gravel-fill along the upstream face of the dam. A large limb has broken off a tree growing near the spillway channel and fallen across the channel, partly blocking its discharge. This limb should be removed and the channel cleaned of all debris etc. In the lower dam, the broken slabs of concrete in the old ruptured spillway should be removed, and a more free water-way made for the brook.

Any further information concerning this matter which you may desire will be furnished by this office upon request.

Yours very truly,

COUNTY COMMISSIONERS

By _____
Chairman

RETURN RECEIPT

Received from the Postmaster the Registered or Insured Article, the original number of which appears on the face of this Card.

(Signature or name of addressee)

(Signature of addressee's agent)

Date of delivery,

193

Form 3811

U. S. GOVERNMENT PRINTING OFFICE

Post Office Department
OFFICIAL BUSINESS

REGISTERED ARTICLE

No. 14529

INSURED PARCEL

No. _____

Return to

Street and Number,
or Post Office Box,

11 Commercial
(NAME OF CARRIER)

SPRINGFIELD,

MASSACHUSETTS.

POSTAGE FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, SEE

POSTMAN OF DELIVERING
OFFICE

AND DATE OF DELIVERY

Clark Dam



1933 Southwick

Located on tributary of Great Brook

City/Town	Southwick
Dam	Clark Dam
Name	Clark, Walter E
Water	Great Brook

West Granby, Conn.
June 6, 1933

To the County Commissioners of
Hampden County.
Springfield
Mass.
Gentlemen.

Yours of May 24th
received. He will go to work
on the dam just as quickly
as we get over some of the
hurried work on the farm.

Yours.

Walter E. Clark
present address. West Granby
Conn.
P.W.B.C.

May 24, 1933

Mr. Walter E. Clark,
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Section 45 of Chapter 253 of the General Laws as amended by Chapter 334 of the Acts of 1923 and as further amended by Chapter 178 of the Acts of 1924 relative to the inspection, condition and safety of the dams of Hampden County, you are notified that your dam, located on a tributary of Great Brook in the Town of Southwick, has been inspected by our engineer and your attention is called to the following conditions noted and recommendations made by him;

"Although repairs were made on this dam a few years ago it is again in poor condition. The embankment is washed out at both sides of the wood sluice overflow and also at the east end of the dam. If the dam is to remain in service there should be a substantial permanent overflow built in the structure, and the top of the embankment raised to a height of at least two feet above the crest of the overflow."

Any further information concerning this matter which you may desire will be furnished by this office upon request.

Yours very truly,

COUNTY COMMISSIONERS

By _____ Chairman.

Fletcher Dam



1936 Southwick

Dam located across Great Brook for 'Fletcher's Old Mill Pure Flour Company'.

City/Town	Southwick
Dam	Fletcher Dam
Name	Fletcher, W F
Name	Fletcher's Old Mill Pure Flour Company
Name	Fletcher's Flour
Water	Great Brook

May 28, 1936

Mr. W. F. Fletcher
Southwick, Mass.

Dear Sir:

In accordance with the provisions of Section 45 of Chapter 253 of the General Laws as amended by Chapter 334 of the Acts of 1923 and as further amended by Chapter 178 of the Acts of 1924 relative to the inspection, condition and safety of the dams of Hampden County, your attention is called to the dangerous condition of your dam built across Great Brook in Southwick caused by the flood waters in March last.

Because of such a condition it appears advisable, and we so direct, that you make a free water way for the brook through the dam by opening the gates therein or by other means, in order that no pondage may be formed or exist until after the damage done is repaired and the structure put in a safe condition again.

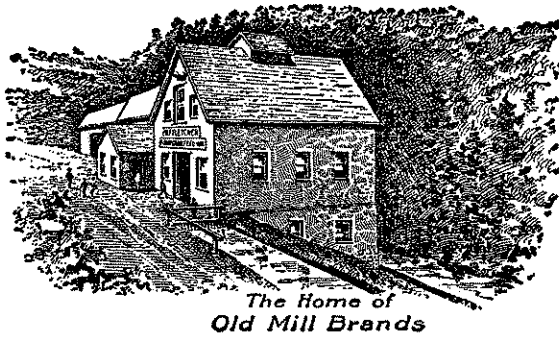
Yours truly,

COUNTY COMMISSIONERS,

By Thos. J. Costello
Chairman

Chas. W. Bray

Maurice G. Donahue



-OLD-MILL- -PURE
FLETCHER'S FLOUR
Buckwheat, Rye and Graham

Manufactured by
W. F. Fletcher

Southwick, Mass.

June 10th. 1936.

County Commissioners,
 of Hampden County,
 Springfield, Mass.

Gentlemen;-

In accordance with your direction that the gate in the dam across Great Brook be removed from the dam, to make free water way and remove existing pondage, we have removed the gate as you directed.

Very truly yours,

W. F. Fletcher.

W. F. Fletcher



End of Book D17~ Dams ~ Town of Southwick